

**TRADE COOPERATION AMONG SELECTED NEWLY
INDUSTRIALIZING DEVELOPING COUNTRIES**

PRINCIPLES AND POLICY OPTIONS

371

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PREFACE

Early literature on trade and development widely recognised collective self-reliance as an important development objective in developing countries. So as to achieve this, industrialisation process in many developing countries was intensified in which the emphasis was placed on growth of trade. Until mid 60s, the industrialization-led development was considered as an inward oriented through reorienting indigenous investment, material resources, technology and protective measures, such as, tariffs, quota, taxes and exchange rate appreciation. Since mid 60s, it was but soon realised that industries, which grew under protective umbrella also required inputs to sustain their ongoing production activity, the demand for which could not be met from the domestic sources alone. This, in turn, forced developing countries to enhance their import-capacity through increase in export, thus, shifting the emphasis from inward-looking import-substitution to outward-looking export-promotion led industrialisation.

Export promotion strategy, implying the exploitation of micro and macro economic efficiency through trading of factor's efficiency and commodities, though induced country's import-capacity but it was not, however, adequate to meet the

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increasing import-requirement needed for country's development process. This was due to the various internal supply bottlenecks and external demand constraints, in which the role played by tariff and non-tariff barriers, received utmost significance. Whereas many developed countries had been successful in 'skipping over' the effect of trade barriers through diversifying their products and markets, the developing countries could not be able to counter such adverse effects. Tariff and non-tariff preferences demanded by developing countries from developed nations under various GATT rounds and UNCTAD conferences appeared no more than a psychological satisfaction. It either ended at the discussion stage or the extent of such preferences was such that could be easily waived by the restrictive clauses and criteria artificially imposed by the developed countries. Thus room for expanding the export from developing into the developed countries was almost closed. Hence, trade among the developing countries themselves was increasingly realised as more important than between the developing and the developed countries.

However, lively discussed but unresolved issue surfaced on trade literature has been to seek the appropriate method for expanding trade among the developing countries. Towards this direction, present study seeks to examine the principal basis for trade cooperation as method for expanding trade

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among the developing countries taking selected newly industrializing developing countries as illustrative example.

In particular, Chapter I discusses the framework of the study, while the performance of trade of NICs vis-a-vis the developed countries is compared in Chapter II. Trade performance of non-oil producing and exporting countries (NONOPEC), oil producing and exporting countries (OPEC), developing countries as a whole (DCs) has been well compared vis-a-vis the developed countries (DMEs) from 1961 to 88. Besides, Chapter III examines the comparative advantage by using Balassa's method of export performance indices at 3 digit levels of SITC groupings both in static and dynamic framework. It provides the basis of trade cooperation among the NICs on the basis of specialisation of commodities. Important contribution of this chapter is to show as to how the trade cooperation among NICs would be different if dynamic comparative advantage as a basis is used rather than that of static comparative advantage as traditionally employed in the trade literature. Besides above, the study also examines the state of competitiveness in NICs in Chapter IV. Competitiveness examined at one and two digit levels of SITC classification with the help of constant-market-share model shows how the trade cooperation can be enhanced on the basis of competitiveness criterion. Thus, on the basis comparative advantage and competitiveness, study suggested the formation of different blocks through which trade of

commodities could be enhanced among NICs. Study further examines in chapter V, the extent to which India's export efficiency is accountable to the cost competitiveness and the export promoting measures. It indicates as to what steps need to be undertaken to improve the cost and export competitiveness of India's major export-products. Thus, through out the study attempt has been to seek the rationale and appropriate basis for enhancing the trade by cooperation among the selected newly industrializing developing countries.

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CHAPTER I

I N T R O D U C T I O N

I. Trade and Industrialisation Policies

An increasing socio-economic development disparity between developed and the developing economies has widely been recognised as a most puzzling characteristic world over. Where as life expectancy in most developed nations has been well over 70 years, many developing nations have not even attained the half of this level. Literacy rates in developed nations and especially in North-America and Europe are well over 90 per cent, while over 90 to 95 per cent of population in developing countries of Asia and Africa can neither read nor write. Also, rate of unemployment in many developed countries averages between 4 to 6 per cent, over 20 per cent of population in many developing countries live without gainful employment.¹ The per capita income in the developed countries has been reported to be 3.61 times higher (\$10,104) in 1989 than that in the developing countries (\$ 2,796).²

To bridge such developmental gap per-se, many developing countries pursued industrialization as a development strategy to accelerate their economic growth with self-reliance by adopting production and trade policies, in which perhaps the key element was the growth of trade.³ Initially, growth of trade was conceived through inward-looking strategy of import-substitution, under which many developing countries began to build up their industrial base by reorienting their domestic production structure by giving priorities to the development of import-substituting industries through indigenous investment, material resources, technology and complex system of protective-policy-induced measures, such as, tariffs, quota, taxes and exchange rate appreciation.⁴ Industrialization process in many developing countries, during 50s and 60s, was thus recognised as import-substitution oriented.

Since mid sixties, it was gradually realised that industries, which grew under protective regime of import-substitution, also required export earnings to enhance import-capacity. This is felt because if rising import that generally accompanies the acceleration phase of the growth process is not matched by increased exports, the growth process is likely to be constrained by balance of payment bottleneck, unless country opts to increase its dependence on foreign aid. Overtime, therefore, the stress on import-substitution was reduced and the emphasis began to be placed on outward-looking export-promotion strategy as the basis for

country's industrial development. The major thrust underlying under such a strategy was the promotion and trading of efficiency, which stressed the 'freer trade' as the mainspring of domestic industrial activity on account of 'international division of labour' and 'economies of scale'.⁵ It would imply that, ceteris-paribus, if a country endowed in labour, should specialise and export labour-intensive goods, whereas import goods that embody capital as a scarce factor of production. Hongkong and Singapore (with small domestic market), Republic of Korea⁶ (with medium domestic market) and Brazil and Mexico (with large domestic market) took the advantage of the out-ward export promotion strategy and emerged as the successful exporters of labour intensive manufacturers.⁷

It must, however, be underscored that import-substitution - which is generally believed to be biased against export-promotion - is not true; it, in fact, lays foundation for the export promotion after certain time lags. Essentially therefore, import-substitution should not be viewed in isolation, but it should be regarded as a pre-requisite for export-promotion. Obviously therefore, it was the import-linked-export promotion strategy, which gained importance for the industrial development in the developing countries.

It may be mentioned that after mid-sixties export performance in developing countries greatly enhanced by out

ward-oriented strategy indeed raised country's capacity to import, but it was not adequate to meet the increasing import-requirements of development. In that sense, the import-linked export promotion strategy did not meet the objectives of economic growth with self-reliance.

In this context, it would be interesting to provide an overview of trade performance in relation to export, import and relative share of export of developing countries vis-a-vis the developed countries. There are various studies, which underlined the poor trade performance record of developing countries⁸ on account of different factors on internal supply and to that on external demand. One of the important factor inter-alia, inhibiting export expansion of developing countries into developed world, has been the various forms of tariff and non-tariff barriers imposed by the developed countries.⁹ As a consequence, trade from developing into the developed countries experienced a deceleration and therefore, need has arisen to expand trade among and between the developing countries themselves. Given these conditions, it would be useful for developing countries to form a trade cooperation among themselves. But generally unresolved but most debatable issue is: what should be the fundamental basis of trade cooperation? Whether, the trade cooperation should be governed by the efficient export-commodities determined by the comparative cost specialisation or competitive ability criterion of commodities or any other economic criterion or criteria? Further, most of the earlier

studies only confined their analysis on a few number of export-commodities, which needs to be enlarged by covering more recent time periods. An attempt has, therefore, been made to identify and to empirically examine the contribution of different internal supply factors, which tend to determine the basis of trade cooperation among the selected newly industrializing developing countries. The factors on external demand has, however, not been considered comprehensively in this study as these are beyond the control of individual newly industrializing developing countries.

II. Objective of the Study

The objectives of the present study are specifically:

1. To provide an overview of trade performance in terms of share of export, import, balance of trade, terms of trade and direction of trade of developing countries vis-a-vis the rest of the world;
2. To examine the level of comparative advantage and complementarities of export-items of each selected NICs vis-a-vis the rest of the selected NICs;
3. To examine the state of competitiveness of export-products in selected developing NICs vis-a-vis the rest of the world;

4. To examine the export growth in principal NICs and other LDCs vis-a-vis the remaining groups of countries and the role of cost efficiency, policy incentives on India's internal export efficiency and export potential of NICs into the developed and developing countries; and
5. To explore certain specific policy directions in order to enhance trade cooperation among selected newly industrializing developing countries in the light of the analysis.

III. Methodology and Data Base

So as to examine objectives per-se, it would have been ideal procedure to include all developing countries in the study. However, owing to the resource and time constraints, this study only concentrates on selected newly industrializing developing countries. Newly industrializing countries are defined as those whose share from manufacturing value added (value added from machinery and transport equipment and chemicals) is equal to or more than 20 per cent of the country's total value added. It implies that manufacturing sector is the primary source of country's industrialization. Based on above definition¹⁰, out of 90 developing countries in 1984, only 19 satisfy the condition of being newly industrializing countries. Further, out of 19 newly industrializing countries, only top 12, considering time and resource limitations, have been selected for indepth study. Share from manufacturing value added accounted for

over 26 per cent of each country's aggregate value added (see Table-I.1). Such selected NICs include: Argentina, Bangladesh, Brazil, India, Israel, Korea Republic, Nigeria, Malaysia, Pakistan, Singapore, South Africa and Turkey. However, owing to the availability of relevant information, only nine NICs have been selected. These are: (1) Argentina, (2) Brazil (3) India, (4) Israel, (5) Korea Republic, (6) Malaysia, (7) Pakistan, (8) Singapore and (9) Turkey. Three NICs, such as, Bangladesh, Nigeria and South Africa have, therefore, been dropped on account of paucity of information.

As for the methodology, each of the aspects of the problem has been dealt with the help of different but appropriate statistical methods and econometric models. For example, the trade performance has been examined with the help of trend regressions, where as, export performance index has been employed to examine the comparative advantage and the complementarities. Further, the state of competitiveness has been examined with the help of constant-market-share model. In short, the study being empirical in nature analyses relevant data by using simple statistical tools of standard varieties.

Present study as distinct from earlier ones on the subject is based on analysis at disaggregated product breakdown upto 3 digit level of SITC classification. At some places, however, Standard International Trade Classification at 2 digit levels has also been used in view of analytical

Table I.1 : Percentage Share of Value Added From Manufacturing to Country's Total Value Added: 1984.

Sl. No.	Newly industrializing countries	Value added from manufacturing to country's total value added (in per cent)
1.	Singapore	58
2.	Korea Republic	50
3.	Nigeria	34
4.	Israel	33
5.	Malaysia	32
6.	Pakistan	31
7.	India	30
8.	Bangladesh	30
9.	South Africa	29
10.	Brazil	29
11.	Turkey	27
12.	Argentina	27
13.	Mexico	26
14.	Uganda	24
15.	Peru	23
16.	Trinidad and Tobago	23
17.	Kenya	21
18.	Egypt	21
19.	Thailand	20

Basic Source : *World Bank, World Development Report, 1987, pp. 214-215.*

convenience in the context of data limitations. The present study uses the secondary sources of information from various national and international statistics, which inter-alia include: International Financial Statistics, Commodity Trade Statistics, Year Book of International Trade Statistics, Statistical Year Book, Year Book of Industrial Statistics, Monthly Statistics of Foreign Trade of India, Annual Survey of Industries, Economic Survey, Reserve Bank of India Bulletin, etc.

IV. Plan of the Study

This Chapter-I has outlined the framework of the study. The overview of trade performance is give in Chapter-II. It traces trend rates of growth of export, import, share of export, balance of trade and terms of trade by various groups of countries during 1961-88 and examines the direction of trade of developed, developing and the socialist countries. The thrust of analysis is to show as to why the trade cooperation among selected newly industrializing developing countries is critically important.

Chapter-III deals with the comparative advantage of export-products at 3 digit levels of SITC classification during 1969-72 - 1974-76, 1974-76 - 1979-82 and 1979-82 - 1984-87. The analysis identifies certain export-products compatible with country's comparative advantage and complementarities. Based on comparative efficiency, the

analysis indicates the formation of trade cooperation among selected NICs.

Chapter-IV examines empirically the competitiveness of export-products disaggregated into one and 2 digit levels of SITC classification during 1969-71 - 1979-81 and 1979-81 - 1985-87. To what extent competitiveness criterion would be the appropriate basis for trade cooperation has been discussed. What factors tend to determine the observed state of competitiveness in terms of price and non-price have also been examined.

Chapter-V discusses the growth potential of selected newly industrializing countries vis-a-vis the other LDCs. It examines as to how far India's export assistance programme is in accordance with India's efficient export for selected years. The concluding Chapter-VI sums up the findings of the previous chapters and suggests certain policy recommendations to encourage the trade cooperation among selected newly industrialising developing countries in consonance with wider goal of development with collective self-reliance.

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CHAPTER II

TRADE PERFORMANCE: AN OVER VIEW

I. Introduction

This chapter overviews the trade performance of oil producing and exporting countries (OPEC), non-oil producing and the exporting countries (NONOPEC), developing countries (DCs) and the developed market economies (DMEs) since 1961 to 88. Trade performance has been examined in terms of values and their growth trends in relation to export and import, terms of trade, balance of trade and relative share of exports. Objectives of this chapter may serve as a prelude to a detailed examination in subsequent chapters of different principles that tend to determine the trade cooperation among selected newly industrialising developing countries (NICs).

II.1 Export Performance In A Macro Framework

Table-II.1 puts the export performance in developed market economies (DMEs), developing countries (DCs) and the world in a macro framework. Volume indices of export of DMEs

Table-II.1 - Export Performance of Developed Market Economies, Developing Countries and the World: 1961-88

Year	Developed market economies (DMEs)		Developing countries (DCs)		World	
	Indices of volume of export at 1980 (1980=100) prices (in bill. US \$)	Value of export at 1980 prices (in bill. US \$)	Indices of volume of export at 1980 (1980=100) prices (in bill. US \$)	Value of export at 1980 prices (in bill. US \$)	Indices of volume of export at 1980 (1980=100) prices (in bill. US \$)	Value of export at 1980 prices (in bill. US \$)
1961	25.1	314	40.0	398	27.7	712
1962	26.4	331	42.5	307	29.2	638
1963	28.4	355	45.6	245	31.4	600
1964	31.9	399	49.3	262	35.1	661
1965	34.3	428	51.6	275	37.5	703
1966	37.0	461	55.0	297	40.4	758
1967	38.9	485	57.9	308	42.5	793
1968	44.2	553	62.8	343	48.0	896
1969	49.2	616	67.4	376	53.1	992
1970	54.3	682	73.9	403	58.7	1085
1971	57.6	722	79.1	430	62.4	1152
1972	62.5	785	88.7	472	68.2	1257
1973	70.6	887	96.1	534	76.6	1421
1974	76.2	951	97.5	557	81.2	1508
1975	72.9	913	89.0	513	76.8	1426
1976	81.5	1018	101.4	582	86.4	1600
1977	85.4	1069	104.0	597	90.1	1666
1978	90.7	1134	104.6	619	94.6	1753
1979	96.7	1208	109.9	677	100.4	1885
1980	100.0	1254	100.0	647	100.0	1901
1981	102.4	1286	89.8	608	99.0	1894
1982	101.3	1261	82.1	550	96.0	1811
1983	103.6	1287	81.8	585	97.8	1872
1984	113.3	1416	83.6	614	105.4	2030
1985	118.4	1473	85.1	620	109.4	2093
1986	120.1	1492	84.4	607	110.9	2099
1987	126.1	1560	88.0	691	123.7	2251
1988	144.9	1676	91.8	760	137.9	2436

Basic Source: International Monetary Fund, International Financial Statistics, various issues and World Bank, World Tables, various issues.

(at 1980 base) steadily increased from 25.1 per cent in 1961 to 76.2 per cent in 1974, which slipped down to 72.9 per cent in 1975. Since then, volume of export showed, more or less, an increasing trend and reached at a peak level of 144.9 per cent in 1988. Export from DMEs in terms of values (at 1980 prices) also followed, by and large, a similar trend, which increased over 5 folds from US \$ 314 Bill. in 1961 to 1976 Bill. in 1988. This was attributable to various supply and demand factors, in which perhaps the major factor was the hike in petroleum prices and the protectionism in the form of tariff and non-tariff barriers pursued by DMEs on export-items from DCs.

Volume indices of export in developing countries steadily shot up from 40.00 per cent in 1961 to 109.9 per cent in 1979, which, thereafter portrayed a declining trend till 1983. Since then, there was a steady improvement in its export indices, which reached to 91.8 per cent in 1988. Export from DCs in values presented a mixed pattern on yearly basis but increased about 2 folds from \$ 398 Bill. in 1961 to \$ 760 Bill. in 1988. This was attributable due partly to the liberal trade regime and the improved export shares in technology-intensive manufactured goods in DCs.

Analysis of table-II.2 portrays the export performance of OPEC and NONOPEC (at 1980 prices). Volume indices of export in OPEC steadily increased from 43.3 per cent in 1961 to 123.1 per cent in 1974, which, however, fell down at 51.2 per cent in 1988. In terms of value, export did not portray

a consistent trend on a year to year basis, but over time it increased over 2.5 folds from \$ 155 Bill. in 1961 to \$ 418 Bill. in 1988. Pattern of export performance in NONOPEC was, however, found to be entirely different than that in DMES and OPEC. Volume indices of export in NONOPEC continuously increased from 31.8 per cent in 1961 to 137.3 per cent in 1986, which there after slipped down to 97.6 per cent in 1988. Export in terms of values recorded an increase of 1.41 times from \$ 243 Bill. in 1961 to 342 Bill. in 1988.

Table-II.3 compares the export performance of developed market economies (DMES), developing countries (DCs) and the world, in which volume indices of export (y) and value of export (y_1) has separately been treated as a function of time (t) in semi-logarithmic regression equation ($\log y = a + bt$). Results of statistically reliable regression coefficients show that export performance in DCs and NONOPEC lagged behind to that of developed market economies (DMES) and the world from 1961 to 88. It is, however, dissatisfying that export volume in developing countries grew at a rate of 3 per cent per annum, which was lower than that of 6 per cent observed in developed market economies (DMES) and the world. Also, the growth rate in volume of export was lowest of 5 per cent in NONOPEC. A similar, more or less, was also the case for export performance in terms of values. Over 1961-88, export in developing countries (DCs) grew at the rate of 4

Table-II.2 - Export Performance of Oil Producing and Exporting Countries (OPEC) and Non-Oil Producing and Exporting Countries (NONOPEC) : 1961-88

Year	Oil Producing and exporting countries (OPEC)		Non-oil Producing and exporting countries (NONOPEC)	
	Indices of volume of export in US\$ (1980=100)	Value of export at 1980 prices (in bill. US \$)	Indices of volume of export in US\$ (1980=100)	Value of export at 1980 prices (in bill. US \$)
1961	43.3	155	31.8	243
1962	46.0	159	33.8	148
1963	49.3	184	36.2	61
1964	55.8	206	38.1	56
1965	60.6	194	39.1	81
1966	64.0	212	41.8	85
1967	69.7	240	43.1	68
1968	74.3	271	47.3	72
1969	81.3	294	50.1	82
1970	96.0	322	52.6	81
1971	105.8	337	55.2	93
1972	110.7	372	64.6	100
1973	120.6	388	69.8	146
1974	123.1	382	70.0	175
1975	105.9	334	70.0	179
1976	120.1	382	80.2	200
1977	120.6	378	84.3	219
1978	115.5	369	89.6	250
1979	118.7	388	97.9	289
1980	100.0	303	100.0	344
1981	80.1	251	103.4	357
1982	66.1	196	104.3	354
1983	60.8	192	110.9	393
1984	56.2	182	121.1	432
1985	54.3	175	127.3	445
1986	50.6	176	137.2	431
1987	50.9	232	91.3	459
1988	51.2	418	97.6	342

Basic Source: International Monetary Fund, International Financial Statistics, various issues and World Bank, World Tables, various issues.

Table-II.3 : Trends in Export Performance of Developed Market Economies (DMEs), Developing Countries (DCs) and the World : 1961-88

Regression Equation : $\log y = a + bt$
 $y = \text{Volume Index of Export 1980} = 100$

Period	Constant term (b)	Regression coefficient (b)	t-values	R^2 = values	F = Statistics
<u>A - Developed Market Economies (DMEs)</u>					
1961-71	3.11	0.09*	38.79	0.99*	891.00
1971-81	4.04	0.06*	16.08	0.97*	291.00
1981-88	4.51	0.06*	8.79	0.93*	79.71
1961-88	3.26	0.06*	30.13	0.97*	840.67
<u>B - Developing Countries (DCs)</u>					
1961-71	3.61	0.07*	48.59	0.99*	891.00
1971-81	4.47	0.02**	2.10	0.33**	4.43
1981-88	4.42	0.01	1.14	0.18	1.32
1961-88	3.92	0.03*	6.38	0.61*	40.67
<u>C - Oil Producing and Exporting Countries (OPEC)</u>					
1961-71	3.65	0.09*	27.97	0.99*	891.00
1971-81	4.80	-0.02***	-1.48	0.20	2.25
1981-88	4.33	-0.06*	-5.50	0.83*	29.29
1961-88	4.29	0.00	0.32	neg.	0.10
<u>Non-Oil Producing and Exporting Countries (NONOPEC)</u>					
1961-71	3.41	0.05*	40.42	0.99*	891.00
1971-81	4.01	0.06*	15.77	0.97*	291.00
1981-88	4.73	neg.	neg.	neg.	neg.
1961-88	3.46	0.05*	18.79	0.93*	345.43
<u>E - World</u>					
1961-71	3.21	0.08*	40.06	0.99*	891.00
1971-81	4.15	0.05*	10.20	0.92*	103.50
1981-88	4.48	0.05*	6.27	0.87*	40.15
1961-88	3.41	0.06*	20.02	0.94*	407.33

Contd..

Table-II.3 Contd..

Regression Equation : $\log y_1 = a + bt$ y_1 = Value of Export 1980 = 100

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Period	Constant term (a)	Regression coefficient (b)	t-values	R ² = values	F = Statistics
<u>A - Developed Market Economies (DMEs)</u>					
1961-71	5.63	0.09*	36.26	0.99*	891.00
1971-81	6.57	0.06*	16.58	0.97*	291.00
1981-88	7.08	0.04*	9.30	0.94*	94.00
1961-88	5.81	0.06*	25.71	0.96*	624.00
<u>B - Developing Countries (DCs)</u>					
1961-71	5.60	0.03**	1.94	0.30**	3.86
1971-81	6.11	0.04*	6.00	0.80*	36.00
1981-88	6.29	0.03*	3.48	0.67*	12.18
1961-88	5.62	0.04*	10.62	0.81*	110.84
<u>C - Oil Producing and Exporting Countries (OPEC)</u>					
1961-71	4.94	0.08*	18.37	0.97*	291.00
1971-81	5.98	-0.02***	-1.72	0.25***	3.00
1981-88	5.16	0.05	1.10	0.17	1.23
1961-88	5.46	0.01	0.98	0.04	1.08
<u>D - Non-Oil Producing and Exporting Countries (NONOPEC)</u>					
1961-71	4.81	-0.05***	-1.43	0.18	1.76
1971-81	4.48	0.13*	15.92	0.97*	291.00
1981-88	5.92	0.02	0.85	0.11	0.74
1961-88	4.11	0.07*	8.18	0.72*	66.86
<u>E - World</u>					
1961-71	6.31	0.06*	7.20	0.85*	51.00
1971-81	7.06	0.05*	11.67	0.94*	141.00
1981-88	7.45	0.04*	6.97	0.89*	48.55
1961-88	6.41	0.05*	21.08	0.94*	407.33

* Indicates significant at 1 per cent level.

** Indicates significant at 5 per cent level.

*** Indicates significant at 10 per cent level.

Source : International Monetary Fund, International Financial Statistics, and World Bank, World Tables, Various issues.

per cent, which was less than that observed in developed market economies (6 per cent) and in the world (5 per cent). It appears, therefore, that the performance of export in developing countries (DCs) lagged behind to that of developed market economies (DMEs) and the world.

II.2 Import Requirements

Export performance of a country also influences the import requirement. A close examination of table-II.4 reveals that volume indices of import and import values (at 1980 prices) increased in all groups of countries, though there were variations over different points of time. So as to arrive at a consistent trend, semi-logarithmic regression functions have been fitted, in which volume indices of import (y) and absolute value of import (y_1) has been separately regressed with time ($\log y = a + bt$). Overall results of statistically reliable models (Table-II.5) show that over 1961-88, import volume and its values grew by 6 per cent annually in developing countries (DCs), developed market economies (DMEs) and the world. However, variations were only observed between the NONOPEC and the OPEC. Whereas in NONOPEC both the volume indices of import and its values grew by 5 per cent per annum, these increased at a higher rate of 10 per cent and 9 per cent respectively in OPEC from 1961 to 1988.

Table II-4 : Import Volume and Values in Different Groups
of Countries and the World : 1961-88

Year	Developed market economies (DMEs)		Developing countries (DCs)		Oil-Producing and exporting countries (OPEC)	
	Indices of volume of import (1980=100)	Value of import at 1980 prices (in bill. US \$)	Indices of volume of import (1980=100)	Value of import at 1980 prices (in bill. US \$)	Indices of volume of import (1980=100)	Value of import at 1980 prices (in bill. US \$)
1961	27.0	384	27.6	163	14.7	19
1962	29.7	420	27.5	164	12.8	24
1963	32.1	456	28.3	169	13.0	17
1964	35.6	503	31.0	183	14.6	19
1965	58.5	545	32.7	192	16.1	21
1966	42.1	598	34.4	195	15.9	21
1967	44.7	629	35.7	194	16.9	22
1968	50.7	712	38.2	220	19.0	25
1969	56.7	799	40.7	248	21.3	28
1970	62.0	875	44.3	270	22.7	30
1971	65.1	918	48.2	292	25.3	33
1972	71.8	1012	50.1	305	28.7	38
1973	80.6	1133	57.1	344	34.0	45
1974	81.7	1152	67.6	388	43.1	37
1975	75.2	1059	72.0	407	62.6	82
1976	86.0	1207	76.1	603	77.4	101
1977	88.9	1249	84.4	478	94.7	123
1978	94.1	1316	89.7	510	95.0	125
1979	101.3	1412	91.5	510	85.3	112
1980	100.0	1390	100.0	555	100.0	131
1981	97.7	1359	109.5	612	123.3	164
1982	97.1	1345	106.5	594	134.2	174
1983	100.7	1391	104.5	586	123.5	162
1984	111.7	1560	105.1	601	109.8	144
1985	118.1	1622	104.7	596	93.9	124
1986	127.3	1753	100.9	583	75.2	99
1987	134.9	1873	110.8	633	87.1	88
1988	154.9	2014	121.7	709	100.9	93

Contd..

Table-II.4 contd...

Year	Oil Producing and exporting Countries (OPEC)		World	
	Indices of volume of import (1980=100)	Value of import at 1980 prices (in bill. US \$)	Indices of volume of Import (1980=100)	Value of import at 1980 prices (in bill. US \$)
1961	32.3	144	26.7	547
1962	29.9	140	28.6	584
1963	32.6	152	30.6	625
1964	35.6	164	33.9	686
1965	38.9	171	36.5	737
1966	41.4	174	39.5	793
1967	42.8	172	41.8	823
1968	45.4	195	46.8	932
1969	47.8	220	51.8	1047
1970	52.2	240	56.7	1145
1971	56.6	259	60.0	1210
1972	57.9	267	65.4	1317
1973	65.4	299	73.6	1477
1974	76.4	351	77.5	1540
1975	75.2	325	74.2	1466
1976	75.7	502	83.1	1810
1977	80.9	355	87.6	1727
1978	88.0	385	92.8	1826
1979	93.6	398	98.5	1922
1980	100.0	424	100.0	1945
1981	104.8	448	100.9	1971
1982	97.1	420	99.5	1939
1983	98.1	424	101.7	1977
1984	103.8	457	109.7	2161
1985	109.1	472	114.2	2218
1986	110.6	484	120.0	2336
1987	119.9	545	135.5	2506
1988	129.9	616	153.0	2723

Source : International Monetary Fund, International Financial Statistics and World Bank, World Tables, various issues.

Table II-5 : Trends in Volume of Import and Values of Import in Developed Market Economies, Developing Countries and the World : 1961-88

Regression Equation : $\log y = a + bt$
 y = Volume Index of Import 1980 = 100

Period	Constant term (b)	Regression coefficient (b)	T-values	R^2 = values	F = Statistics
<u>A - Developed Market Economics (DMEs)</u>					
1961-71	3.19	0.09*	31.88	0.99*	891.00
1971-81	4.20	0.04*	8.17	0.88*	66.00
1981-88	4.45	0.07*	11.06	0.95*	114.00
1961-88	3.41	0.06*	21.73	0.95*	494.00
<u>B - Developing Countries (DCs)</u>					
1961-71	3.20	0.06*	20.44	0.98*	441.00
1971-81	3.82	0.08*	18.86	0.98*	441.00
1981-88	4.64	0.01	1.15	0.18	1.32
1961-88	3.22	0.06*	23.45	0.95*	494.00
<u>C - Oil-Producing and Exporting Countries (OPEC)</u>					
1961-71	2.45	0.06*	8.58	0.89*	72.82
1971-81	3.16	0.16*	9.80	0.91*	91.00
1981-88	4.93	-0.06**	-2.93	0.59**	8.63
1961-88	2.37	0.10*	13.29	0.87*	174.00
<u>D - Non-Oil-Producing and Exporting Countries (NONOPEC)</u>					
1961-71	3.33	0.06*	16.89	0.97*	291.00
1971-81	3.99	0.06*	15.30	0.96*	216.00
1981-88	4.53	0.04*	4.43	0.77*	20.09
1961-88	3.41	0.05*	29.79	0.97*	840.67
<u>E - World</u>					
1961-71	3.18	0.08*	53.20	0.99*	891.00
1971-81	4.09	0.05*	13.64	0.95*	171.00
1981-88	4.48	0.06*	7.24	0.90*	54.00
1961-88	3.35	0.06*	26.75	0.96*	624.00

Contd..

Regression Equation : $\log y_1 = a + bt$

y_1 = Value of Import (in bill US \$) 1980 = 100

Period	Constant term (a)	Regression coefficient (b)	T-values	R^2 = values	F = Statistics
<u>A - Developed Market Economics (DMEs)</u>					
1961-71	5.86	0.09*	51.78	0.99*	891.00
1971-81	6.85	0.04*	7.90	0.87*	60.23
1981-88	7.10	0.06*	12.63	0.96*	144.00
1961-88	6.08	0.06**	21.00	0.94*	407.33
<u>B - Developing Countries (DCs)</u>					
1961-71	4.97	0.06*	11.08	0.93*	119.57
1971-81	5.65	0.07*	6.65	0.83*	43.94
1981-88	6.35	0.02***	1.84	0.36***	3.38
1961-88	5.01	0.06*	19.38	0.94*	407.33
<u>C - Oil-Producing and Exporting Countries (OPEC)</u>					
1961-71	2.83	0.05*	4.54	0.70*	21.00
1971-81	3.34	0.17*	7.99	0.88*	66.00
1981-88	5.33	-0.11*	-7.54	0.90*	54.00
1961-88	2.71	0.09*	10.59	0.81*	110.84
<u>D - Non-Oil-Producing and Exporting Countries (NONOPEC)</u>					
1961-71	4.84	0.06*	11.36	0.93*	119.57
1971-81	5.57	0.05*	4.29	0.67*	18.27
1981-88	5.96	0.05*	4.67	0.78*	21.27
1961-88	4.92	0.05*	19.60	0.94*	407.33
<u>E - World</u>					
1961-71	6.20	0.08*	34.30	0.99*	891.00
1971-81	7.11	0.05*	9.54	0.91*	91.00
1981-88	7.48	0.05*	9.27	0.93*	79.71
1961-88	6.38	0.06*	23.27	0.95*	494.00

* Indicates significant at 1 per cent level.

** Indicates significant at 5 per cent level.

*** Indicates significant at 10 per cent level.

Source: International Monetary Fund, International Financial Statistics and World Bank, World Tables, various issues.

II.3 Balance of Trade

Gap between export and import determines the position in balance of trade. Analysis of table-II.6 suggests that there has been a unfavourable merchandise balance of trade in all the years in developed market economies (DMEs), which widened by over 4 folds from \$ 70 Bill. in 1961 to \$ 330 Bill. in 1988. Developing countries (DCs), on the other hand, experienced surpluses in their merchandise trade in almost all years, excepting in 1976, 1981, 1982 and 1983 when trade deficit amounting \$ 21 Bill., \$ 4 Bill., \$ 44 Bill. and \$ 1 Bill was recorded respectively. Position in merchandise trade was, however, found to be different in different groups of developing countries (DCs): where as, there appeared a favourable trade balance in OPEC, it was unfavourable in NONOPEC in all years, excepting 1961 and 1962, when trade surplus amounting \$ 99 Bill. and \$ 8 Bill. was recorded.

So as to provide a more consistent picture about the behaviour of merchandise trade, a linear regression model, treating merchandise trade as a function of time ($y = a + bt$), was fitted. Statistically significant regression coefficients (Table-II.7) showed that deficit in trade increased at a higher level (\$-4.86 Bill. per year) in developing countries (DCs) than that in the developed market economies \$ 3.95 Bill. and that in the OPEC (\$ -3.33 Bill.). It implies that merchandise trade position has been relatively better off in developed market economies (DMEs)

Table-II.6 : Balance of Trade in Developed Market Economies
Developing Countries and the World : 1961-88

(In Bill. US \$ at 1980 prices)

Year	Developed market economies (DMEs)	Developing countries (DCs)	Oil-Produ- cing and exporting countries (OPEC)	Non-Oil Producing and expor- ting cou- tries (NONOPEC)	World
1961	-70	235	136	99	165
1962	-89	143	135	8	54
1963	-101	76	167	-91	-25
1964	-104	79	187	-108	-25
1965	-117	83	173	-90	-34
1966	-137	102	191	-89	-35
1967	-144	114	218	-104	-30
1968	-159	123	246	-123	-36
1969	-183	128	266	-138	-55
1970	-193	133	292	-159	-60
1971	-196	138	304	-166	-58
1972	-227	167	334	-167	-60
1973	-246	190	343	-153	-56
1974	-201	169	345	-176	-32
1975	-146	106	252	-146	-40
1976	-189	-21	281	-302	-210
1977	-180	119	255	-136	-61
1978	-182	109	244	-135	-73
1979	-204	167	276	-109	-37
1980	-136	92	172	-80	-44
1981	-73	-4	87	-91	-77
1982	-84	-44	22	-66	-128
1983	-104	-1	30	-31	-105
1984	-144	13	38	-25	-131
1985	-149	24	51	-27	-125
1986	-261	24	77	-53	-237
1987	-313	58	144	-86	-255
1988	-338	51	325	-274	-287

Basic Source : International Monetary Fund, International Financial
Statistics, World Bank, World Tables, Various issues

Table II.7 : Growth Trends in Balance of Trade in Developed Market Economies, Developing Countries and the World : 1961-88 : 1961-88

*Regression Equation : $y = a + bt$
Balance of Trade = (export-import)*

Period	Constant term (a)	Regression coefficient (b)	T-values	R^2 = values	F = Statistics
A - Developed Market Economies (DMEs)					
1961-71	-57.78	-12.99*	-25.24	0.99*	891.00
1971-81	-240.49	10.08*	2.99	0.50*	9.00
1981-88	2.96	-41.38*	-8.55	0.92*	69.00
1961-88	-109.57	-3.95*	-2.77	0.23*	7.77
B - Developing Countries (DCs)					
1961-71	136.73	-2.27*	-0.52	0.33	0.28
1971-81	176.69	-10.78***	-1.81	0.26**	3.16
1981-88	-37.43	11.68*	4.52	0.77*	20.09
1961-88	162.43	-4.86*	-3.69	0.34*	13.39
C - Oil Producing and Exporting Countries (OPEC)					
1961-71	105.29	17.53*	14.38	0.96*	216.00
1971-81	379.35	-19.39*	4.45	0.69*	20.03
1981-88	-33.43	28.93**	2.45	0.50**	6.00
1961-88	248.01	-3.33***	-1.45	0.07	1.96
D - Non-Oil Producing and Exporting Countries (NONOPEC)					
1961-71	31.44	-19.80*	-4.84	0.72*	23.14
1971-81	-202.65	8.61***	1.66	0.23***	2.69
1981-88	-4.00	-17.25***	-1.48	0.27	2.22
1961-88	-85.58	-1.53	-0.82	0.03	0.80
E - World					
1961-71	78.95	-15.26*	-3.52	0.58*	12.43
1971-81	-63.80	-0.70	-0.14	0.002	0.01
1981-88	-34.46	-29.70*	-5.85	0.85*	34.00
1961-88	-52.86	-8.81*	-6.68	0.63*	44.27

* Indicates significant at 1 per cent level.

** Indicates significant at 5 per cent level.

*** Indicates significant at 10 per cent level.

Source: International Monetary Fund, International Financial Statistics, World Bank, World Tables, Various issues.

and the oil producing and exporting countries (OPEC) than that in the developing countries (DCs).

II.4 Terms of Trade

Terms of trade more or less portrayed a mix pattern in developed market economies (DMEs) and in different groups of developing countries (DCs). Terms of trade indices (at 1980 base), which was 31.32 in 1961 in DCs rose to 47.82 in 1971 and 103.54 in 1981, but since then it began deteriorating and was down at 84.64 in 1988. Terms of trade indices improved by 2.70 times from 31.32 in 1961 to 84.64 in 1988. Between the groups of developing countries, terms of trade improved in OPEC, whereas fell down in NONOPEC. In case of former it improved by 2.50 times, while in the latter it remained at 71 per cent of its previous level (Table-II.8).

Table-II.9 compares the terms of trade in different groups of countries. A semi-logarithmic regression equation has been employed, in which indices of terms of trade are expressed as a function of time ($\text{Log } y = a + bt$). Statistically reliable regression coefficients show that terms of trade has been more favourable in OPEC (0.08), DCs (0.04) and World (0.01) than that in NONOPEC (-0.01) and in the developed market economies (-0.007).

Table-II.8 : Terms of Trade in Developed Market Economies,
Developing Countries and the World : 1961-88

(In US \$ at 1980 prices)

Year	Developed market economies (DMEs)	Developing countries (DCs)	Oil-Produ- cing and exporting countries (OPEC)	Non-Oil Pro- ducing and exporting countries (NONOPEC)	World
1961	118.92	31.32	17.37	138.68	72.45
1962	120.26	36.79	17.50	118.96	85.64
1963	120.81	42.90	17.25	108.91	98.36
1964	119.71	43.35	16.95	112.84	98.06
1965	120.18	45.06	18.48	113.22	98.82
1966	121.75	44.43	17.68	115.83	99.19
1967	122.84	44.39	17.63	114.36	99.91
1968	122.30	44.49	17.74	116.24	99.87
1969	123.58	44.43	17.11	119.18	100.63
1970	123.21	45.31	16.93	116.88	100.37
1971	123.02	47.82	20.45	113.68	100.07
1972	124.60	48.46	20.22	113.13	102.58
1973	122.62	52.37	23.45	118.27	102.21
1974	108.82	80.10	60.54	111.29	101.98
1975	111.05	75.35	58.26	100.38	101.83
1976	109.45	79.07	61.65	104.45	112.43
1977	108.03	84.02	62.12	113.06	101.99
1978	111.18	77.63	55.65	107.69	102.11
1979	107.33	85.10	70.08	104.70	101.47
1980	100.00	100.00	100.00	100.00	100.00
1981	98.76	103.54	116.49	93.28	100.83
1982	100.43	103.55	116.72	92.28	102.08
1983	102.30	96.60	105.84	91.53	101.79
1984	101.79	99.34	104.52	95.23	101.98
1985	102.50	98.04	103.13	92.31	101.99
1986	112.99	90.54	67.70	94.52	107.88
1987	113.91	86.50	53.65	95.90	108.07
1988	115.45	84.64	43.43	98.80	108.98

Basic Source : International Monetary Fund, International Financial
Statistics, World Bank, World Tables, Various issues

Table-II-9 : Trends in Terms of Trade in Developed Market Economies, Developing Countries and the World : 1961-88

Regression Equation : $\log y = a + bt$
 $y = \text{Indices of Terms of Trade in US\$}$
 1980=100

Period	Constant term (a)	Regression coefficient (b)	T-values	R^2 = values	F = Statistics
A - Developed Market Economies (DMEs)					
1961-71	4.78	0.004*	6.64	0.83*	43.94
1971-81	4.84	-0.02*	-6.72	0.83*	43.94
1981-88	4.55	0.02*	6.06	0.86*	36.86
1961-88	4.83	-0.007*	-5.08	0.50*	26.00
B - Developing Countries (DCs)					
1961-71	3.58	0.03*	3.70	0.60*	13.50
1971-81	3.83	0.08**	6.95	0.84*	47.25
1981-88	4.69	-0.03*	-6.88	0.89*	48.55
1961-88	3.53	0.04*	12.55	0.86*	159.71
C - Oil Producing and Exporting Countries (OPEC)					
1961-71	2.84	0.006	1.29	0.16*	1.71
1971-81	2.93	-0.17*	6.61	0.83*	43.94
1981-88	5.08	-0.14*	-5.69	0.84*	31.50
1961-88	2.53	0.08*	8.28	0.72*	66.86
D - Non-Oil Producing and Exporting Countries (NONOPEC)					
1961-71	4.80	-0.007	-1.13	0.12	1.23
1971-81	4.77	-0.02*	-3.57	0.59*	12.95
1981-88	4.51	0.008**	2.87	0.58**	8.29
1961-88	4.83	-0.01*	-8.41	0.73*	70.30
E - World					
1961-71	4.43	0.02*	3.04	0.51*	9.37
1971-81	4.64	-0.001	-0.37	0.02	0.18
1981-88	4.59	0.01*	4.86	0.80*	24.00
1961-88	4.52	0.01*	4.03	0.39*	16.62

* Indicates significant at 1 per cent level.

** Indicates significant at 5 per cent level.

*** Indicates significant at 10 per cent level.

Source: International Monetary Fund, International Financial Statistics, World Bank, World Tables, various issues.

Various factors on internal supply and that on external demand have been held responsive for determining the behaviour of terms of trade. It has, however, not been possible to capture the influence of all factors explaining terms of trade. Notwithstanding, influence of major factors i.e., export and import prices have been considered. Analysis of table-II.10 portrays that between 1961-88, import prices in NONOPEC increased more than 4 times while export prices by about 3 times. Export prices and the import prices in developed market economies grew by 4.21 and 4.33 times respectively. In developing countries (DCs), export prices increased by over 11 times, import prices by 4.20 times and that in OPEC, 10.08 and 4 times respectively. The substantial increase in import prices over export prices has, therefore, been found as a major causal factor for the unfavourable terms of trade in NONOPEC.

A semi-logarithmic regression function has been fitted treating export prices (y) and import prices (y_1) as a function of time (t) ($\log y = a + bt$). A close examination of table-II.11 portrays that import prices increased at a higher rate in NONOPEC (7 per cent per annum) than that its export prices (6 per cent). In sharp contrast to above, export prices in OPEC and DCs grew at a higher rate (14 and 11 per cent) than that of import prices (6 per cent and 7 per cent). It suggests that increase in import prices over export prices has been the major factor for worsening terms of trade position in NONOPEC than that in OPEC and DCs.

Table-TT.10- Movement in Export Price Indices and Import Price Indices, in Developed Market Economies, Developing Countries and the World : 1961-88

(In US \$ at 1980 prices)

Year	Developed market economies (DMEs)		Developing countries (DCs)		Oil-Producing and exporting countries (OPEC)	
	Export price indices	Import price indices	Export price indices	Import price indices	Export price indices	Import price indices
1961	28.15	23.67	6.64	21.20	4.83	27.80
1962	28.07	23.34	8.60	23.37	4.83	27.69
1963	28.50	23.59	11.07	25.80	4.83	28.00
1964	28.84	24.09	11.41	26.32	4.83	28.50
1965	29.36	24.43	12.10	26.85	5.36	29.00
1966	30.05	24.68	11.93	26.85	5.27	29.80
1967	30.22	24.60	11.84	26.67	5.27	29.90
1968	29.88	24.43	11.75	26.41	5.27	29.70
1969	30.92	25.02	11.93	26.85	5.27	30.80
1970	32.38	26.28	12.44	27.45	5.45	32.20
1971	34.20	27.80	13.63	28.50	6.85	33.50
1972	37.48	30.08	14.65	30.23	7.38	36.50
1973	45.25	36.90	19.93	38.05	10.46	44.60
1974	56.48	51.90	44.12	55.08	34.45	56.90
1975	62.78	56.53	45.57	60.47	36.12	62.00
1976	62.61	57.20	48.30	61.08	38.41	62.30
1977	67.62	62.59	53.66	63.86	42.18	67.90
1978	76.34	68.66	54.43	70.11	42.18	75.80
1979	88.08	82.06	71.21	83.67	61.25	87.40
1980	100.00	100.00	100.00	100.00	100.00	100.00
1981	95.94	97.14	105.79	102.17	111.95	96.10
1982	92.57	92.17	100.77	97.31	107.73	92.30
1983	89.55	87.53	91.40	94.61	94.20	89.00
1984	86.96	85.43	90.03	90.62	91.04	87.10
1985	86.36	84.25	85.18	86.88	87.87	85.20
1986	99.57	88.12	75.21	83.06	63.71	94.10
1987	111.23	97.64	75.38	87.14	55.10	102.70
1988	118.57	102.70	75.38	89.05	48.68	112.10

Contd....

Table-II.10 contd...

Year	Non-Oil Producing and exporting countries (NONOPEC)		World	
	Export Price indices	Import Price indices	Export Price indices	Import Price indices
1961	29.40	21.20	17.30	23.88
1962	27.80	23.37	20.16	23.54
1963	28.10	25.80	23.49	23.88
1964	29.70	26.32	23.83	24.30
1965	30.40	26.85	24.35	24.64
1966	31.10	26.85	24.78	24.98
1967	30.50	26.67	24.87	24.89
1968	30.70	26.41	24.61	24.64
1969	32.00	26.85	25.39	25.23
1970	33.10	28.32	26.60	26.50
1971	32.40	28.50	28.24	27.94
1972	34.20	30.23	30.92	30.14
1973	45.00	38.05	37.91	37.09
1974	61.30	55.08	53.37	52.33
1975	60.70	60.47	58.12	57.07
1976	63.80	61.08	58.89	52.33
1977	72.20	63.86	63.99	62.74
1978	75.50	70.11	70.38	68.92
1979	87.60	83.67	83.51	82.30
1980	100.00	100.00	100.00	100.00
1981	95.30	102.17	98.70	97.88
1982	89.80	97.31	94.91	92.97
1983	86.60	94.61	90.07	88.48
1984	86.30	90.62	87.91	86.20
1985	80.20	86.88	86.36	84.67
1986	78.51	83.06	94.82	87.89
1987	83.57	87.14	104.32	96.53
1988	87.98	89.05	110.28	101.19

Basic Source: International Monetary Fund, International Financial Statistics, and World Bank, World Tables, various issues.

Table-II.11: Trends in Export Price Indices and Import Price Indices in Developed Market Economies, Developing Countries and the World : 1961-88

Regression Equation : $\log y = a + bt$
 $y = \text{Export Price Indices in US\$ 1980} = 100$

Period	Constant term (a)	Regression coefficient (b)	T-values	R^2 = values	F = Statistics
<u>A - Developed Market Economies (DMEs)</u>					
1961-71	3.30	0.12*	7.91	0.87*	60.23
1971-81	3.49	0.11*	14.85	0.96*	216.00
1981-88	4.43	0.03**	2.29	0.47**	5.32
1961-88	3.07	0.06*	17.91	0.93*	345.43
<u>B - Developing Countries (DCs)</u>					
1961-71	2.11	0.05*	3.92	0.63*	15.69
1971-81	2.53	0.20*	9.68	0.91*	91.00
1981-88	4.70	-0.05*	-9.76	0.94*	94.00
1961-88	1.86	0.11*	13.62	0.88*	126.94
<u>C - Oil Producing and Exporting Countries (OPEC)</u>					
1961-71	1.51	0.02*	3.96	0.64*	16.00
1971-81	1.80	0.28*	8.89	0.90*	81.00
1981-88	4.93	-0.12*	-8.97	0.93*	79.71
1961-88	0.99	0.14*	11.25	0.83*	126.94
<u>D - Non-Oil Producing and Exporting Countries (NONOPEC)</u>					
1961-71	3.33	0.01*	6.15	0.81*	38.37
1971-81	3.46	0.11*	10.71	0.93*	119.57
1981-88	4.52	-0.01***	-1.86	0.37***	3.52
1961-88	3.15	0.06*	12.69	0.86*	159.71
<u>E - World</u>					
1961-71	2.96	0.03*	5.30	0.76*	28.50
1971-81	3.29	0.13*	13.58	0.95*	171.00
1981-88	4.49	0.02	1.33	0.23	1.79
1961-88	2.78	0.07*	18.44	0.93*	345.43

Contd..

Table-II.11 Contd..

$$\text{Regression Equation : } \log y_1 = a + bt$$

y_1 = Import Price Indices in US\$ 1980 = 100

Period	Constant term (a)	Regression coefficient (b)	T=values	R ² = values	F = Statistics
<u>A - Developed Market Economies (DMEs)</u>					
1961-71	3.13	0.01*	5.59	0.78*	58.50
1971-81	3.26	0.13*	13.95	0.96*	216.00
1981-88	4.48	0.01	0.71	0.08*	0.52
1961-88	2.85	0.07*	15.42	0.90*	234.00
<u>B - Developing Countries (DCs)</u>					
1961-71	3.14	0.02*	4.21	0.66**	17.47
1971-81	3.29	0.13*	12.06	0.94*	141.00
1981-88	4.62	-0.02*	-3.74	0.70*	14.00
1961-88	2.92	0.07*	13.92	0.88*	190.67
<u>C - Oil Producing and Exporting Countries (OPEC)</u>					
1961-71	3.28	0.02*	9.59	0.91*	91.00
1971-81	3.47	0.11*	14.33	0.96*	216.00
1981-88	4.45	0.02***	1.67	0.32	2.82
1961-88	3.07	0.06*	17.00	0.92*	299.00
<u>D - Non-Oil Producing and Exporting Countries (NONOPEC)</u>					
1961-71	3.13	0.02*	4.57	0.70*	63.00
1971-81	3.23	0.13*	10.07	0.92*	103.50
1981-88	4.62	-0.02*	-3.74	0.70*	14.00
1961-88	2.91	0.07*	13.33	0.87*	174.00
<u>E - World</u>					
1961-71	3.14	0.01*	5.71	0.78*	31.91
1971-81	3.26	0.13*	13.39	0.95*	171.00
1981-88	4.50	0.005	0.42	0.03*	0.19
1961-88	2.86	0.07*	15.27	0.90*	234.00

* Indicates significant at 1 per cent level.

** Indicates significant at 5 per cent level.

*** Indicates significant at 10 per cent level.

Source : International Monetary Fund, International Financial Statistics, and World Bank, World Tables, Various issues.

II.5 Relative Share in World Exports

Another dimension of trade performance could be the examination of movement in share of export in the world export. To what extent the export of developing in general and NONOPEC in particular has been able to capture the increasing world trade could be examined by tracing the relative share of export from developing countries in the world market.

Table-II.12 depicts the relative share of export of developed market economies (DMEs), developing countries (DCs), NONOPEC and the OPEC over the period 1961-88 at 1980 prices. Broadly speaking, the export share from DMEs showed an increasing trend in the world export, which shot up from 44.10 per cent in 1961 to 68.80 per cent in 1988, where as, that from DCs witnessed more or less a declining trend. The decline was particularly sharp reaching at the rock bottom level of 31.20 per cent of world export in 1988 as compared to its share of 55.90 per cent in 1961; 37.33 per cent in 1971; and 32.10 per cent in 1981.

Share of export in OPEC improved more or less from 1961 to 1970 but thereafter deteriorated till 1986. In the last two years, it registered an improvement. The share of export in OPEC declined from 21.77 per cent in 1961 to 17.16 per cent in 1988. Share of export in NONOPEC declined from 34.13 per cent in 1961 to 8.08 per cent in 1971, which.

Table-II.12: Relative Share of Export in Developed Market Economies and Developing Countries at 1980 prices : 1961-88

(In per cent)

Year	Developed market Economies (DMEs)	Developing countries (Dcs)	Oil-Producing and exporting Countries (OPEC)	Non-Oil Producing and exporting countries (NONOPEC)
1961	44.10	55.90	21.77	34.13
1962	51.88	48.12	24.92	23.20
1963	59.17	40.83	30.67	10.16
1964	60.36	39.64	31.16	8.48
1965	60.88	39.12	27.60	11.52
1966	60.82	39.18	27.97	11.21
1967	61.16	38.84	30.26	8.58
1968	61.72	38.28	30.25	8.03
1969	62.10	37.90	29.64	8.26
1970	62.86	37.14	29.68	7.46
1971	62.67	37.33	29.25	8.08
1972	62.45	37.55	29.59	7.96
1973	62.42	37.58	27.30	10.28
1974	63.06	36.94	25.33	11.61
1975	64.03	35.97	23.42	12.55
1976	63.63	36.37	23.88	12.49
1977	64.17	35.83	22.69	13.14
1978	64.69	35.31	21.05	14.26
1979	64.08	35.92	20.58	15.34
1980	65.96	34.04	15.94	18.10
1981	67.90	32.10	13.25	18.85
1982	69.63	30.37	10.82	19.55
1983	68.75	31.25	10.26	20.99
1984	69.75	30.25	8.97	21.28
1985	70.38	29.62	8.36	21.26
1986	71.08	28.92	8.38	20.54
1987	69.30	30.70	10.31	20.39
1988	68.80	31.20	17.16	14.04

Basic Source : International Monetary Fund, International Financial Statistics, World Bank, World Tables, Various issues

however, picked up to 18.10 per cent in 1981 and by 1988 it again slipped back to 14.04 per cent. It implies that share of export in DCs, NONOPEC and OPEC failed to capture the buoyancy in the world export at the time when the export share from DMEs was increasing.

So as to understand the consistent trend for the growth in export share with time, we worked out the semi-logarithmic regression equation ($\text{Log } y = a + bt$). Results of statistically reliable regression coefficients (Table-II.13) exhibited a higher rate of growth in DMEs vis-a-vis the DCs and NONOPEC. DMEs recorded an improvement by 1 per cent annually, DCs and NONOPEC witnessed a deceleration by 2 per cent. In case of OPEC, share of export declined by 4 per cent per annum. The present analysis, therefore, underlined the poor performance of developing countries (DCs) vis-a-vis the developed market economies (DMEs) in sharing the world export expansion during 1961 to 1988.

II.6 Direction of World Trade

Direction of trade by developed market economies (DMEs), developing countries (DCs) and socialist countries (SCs) has been summarised in table-II.14. The share of intra-regional export in developed market economies (DMEs), by and large, increased, where as, that of import, more or less, declined over the years. Trade from developed market economies (DMEs) into developing countries (DCs), by and large, showed a

Table-II.13: Growth trends in Relative Share of Export in Developed Market Economies and Developing Countries : 1961-88

Regression Equation : $\log y = a + bt$
 y = Relative Share of Export at 1980 = 100

Period	Constant term (a)	Regression coefficient (b)	T-values	R^2 = values	F = Statistics
<u>A - Developed Market Economies (DMEs)</u>					
1961-71	3.92	0.02	3.49	0.58*	12.43
1971-81	4.12	0.01	5.96	0.80*	36.00
1981-88	4.23	0.002	0.95	0.13	0.90
1961-88	4.00	0.01	7.55	0.69*	20.03
<u>B - Developing Countries (DCs)</u>					
1961-71	3.89	-0.03*	-4.02	0.64*	16.00
1971-81	3.65	-0.01*	-5.57	0.77*	30.13
1981-88	3.44	-0.005	-0.93	0.13	0.90
1961-88	3.82	-0.02*	-10.75	0.82*	118.44
<u>C - Oil Producing and Exporting Countries (OPEC)</u>					
1961-71	3.23	0.02**	2.19	0.35**	4.85
1971-81	3.53	-0.07*	-8.03	0.88*	66.00
1981-88	2.31	0.01	0.30	0.01	0.06
1961-88	3.65	-0.04*	-7.28	0.67*	18.27
<u>D - Non-Oil Producing and Exporting Countries (NONOPEC)</u>					
1961-71	3.10	-0.12*	-3.80	0.62*	14.68
1971-81	2.03	+0.08*	13.25	0.95*	171.00
1981-88	3.07	-0.02	-1.08	0.16	1.14
1961-88	2.30	-0.02**	-2.35	0.18**	5.71

* Indicates significant at 1 per cent level.

** Indicates significant at 5 per cent level.

Source : International Monetary Fund, International Financial Statistics, and World Bank, World Tables, Various issues.

Table-II.14 : Direction of World Trade Over Different Points of Time

(In Per cent)

Export From	Exports To	World	Developed countries	Developing countries	Socialist countries
World	1965	100.00 (100.00)	68.35 (100.00)	19.91 (100.00)	11.74 (100.00)
	1970	100.00 (100.00)	71.05 (100.00)	18.52 (100.00)	10.43 (100.00)
	1980	100.00 (100.00)	67.90 (100.00)	23.61 (100.00)	8.49 (100.00)
	1987	100.00 (100.00)	72.30 (100.00)	19.60 (100.00)	8.10 (100.00)
Developed countries	1965	100.00 (68.82)	75.36 (75.87)	20.50 (70.88)	4.14 (24.27)
	1970	100.00 (71.95)	77.42 (78.40)	18.56 (72.10)	4.02 (27.72)
	1980	100.00 (63.24)	71.60 (66.69)	23.50 (62.93)	4.90 (36.49)
	1987	100.00 (63.37)	78.30 (69.10)	18.50 (58.13)	3.20 (36.45)
Developing countries	1965	100.00 (19.36)	72.04 (20.40)	20.75 (20.18)	7.21 (11.88)
	1970	100.00 (27.47)	73.51 (18.07)	20.13 (18.98)	6.36 (10.66)
	1980	100.00 (27.98)	70.64 (29.11)	25.36 (30.28)	3.80 (12.52)
	1987	100.00 (27.40)	67.50 (26.46)	24.80 (36.11)	7.70 (6.28)

Contd...

Table-II.14 Contd..

Export From	Exports To	World	Developed countries	Developing countries	Socialist countries
Socialist countries	1965	100.00 (11.82)	21.56 (3.73)	15.07 (8.94)	63.38 (63.85)
	1970	100.00 (10.58)	23.69 (3.53)	15.61 (8.92)	60.70 (61.62)
	1980	100.00 (8.78)	32.49 (4.20)	18.23 (6.79)	49.28 (50.99)
	1987	100.00 (9.23)	32.80 (4.44)	19.90 (5.76)	46.30 (57.27)

Note : Figures under brackets show the ~~per~~ cent in import while unbracketed figures indicate the percent in export.

Source : United Nations, Statistical Year Book, Various issues and UNCTAD Secretariat Computations based on data from UNSO.

deterioration. The export share from developed market economies into socialist block declined, where as, to that of import increased. Intra-regional trade of developing countries (DCs) improved over the years. It is satisfying that export share between developing countries, which was around 21 per cent in 1965 rose up to around 25 per cent in 1987, while that of import share increased from 20 per cent to 36 per cent. Export share from developing countries (DCs) declined into the developed market economies (DMEs). The trade from socialist countries with developing countries (DCs) showed a mixed pattern. Where as the share of export from socialist countries increased into the DCs, the import share there from declined over the years.

As intra-regional trade of developing countries (DCs) portrayed improvement, it would be worthwhile to examine the structure of intra-regional and the inter-regional trade commodity-wise. The analysis of table-II.15 showed that, between 1980 and 1987, intra-regional trade of developing countries (DCs) declined in food, agricultural raw materials and fertilizers, steel, iron and non-ferrous metals, where as, it increased in chemicals, machinery and transport equipment and other manufacturers. Specifically, intra-regional trade of developing countries (DCs) increased in chemicals from 8.10 per cent in 1980 to 10.40 per cent in 1987; in machinery and transport from 21.90 per cent to 27.10 per cent; and in other manufacturers from 27.20 per cent to 31.80 per cent.

Table II.15 : Structure of Intra-regional and Inter-regional Trade in Developing Countries by Broad Product Groups : 1980 and 1987.

(In per cent)

Product Groups	Intra-regional trade		Inter-regional trade		All exports	
	1980	1987	1980	1987	1980	1987
1. Food	21.90	14.70	28.80	20.80	29.90	18.90
2. Agricultural raw materials and fertilizers	11.20	7.80	7.70	6.10	10.80	5.90
3. Chemical products	8.10	10.40	4.40	7.10	4.00	4.90
4. Steel, iron and Steel and non-ferrous metals	7.80	6.70	6.10	7.80	12.20	7.70
5. Machinery and transport equipment	21.90	27.10	17.10	18.30	13.10	23.60
6. Other manufacturing	27.20	31.80	33.70	37.70	27.60	37.70
7. Total manufactures	57.20	69.30	55.30	63.10	44.70	66.20

Source : UNCTAD Secretariat Computations, based on data from UNSO

A similar finding also emerged in respect of inter-regional trade of developing countries (DCs), which decelerated in food and agricultural raw materials and fertilizers, whereas, improved in chemicals, steel, iron and non-ferrous metals, machinery and transport equipment and other manufacturers. It appears that intra-regional and inter-regional trade of developing countries (DCs) improved in non-traditional-technology intensive products, whereas deteriorated in traditional resource-intensive products.

III. Factors Affecting Trade Performance

The poor trade performance in developing countries (DCs) during 1960s was viewed as an outcome of 'low elasticity of export supply' determined mainly by the 'lack of manufacturing experience'¹, 'low skilled labour force' and 'technological inefficiency'². Derived from above, the production structure in developing countries (DCs) was attributed to be operating under 'diminishing returns to scale'³. Apart from these, many developing countries also faced the policy induced restraints on account of their inward-oriented trade strategy, which not only led to their poor trade performance, but also created the country's internal adjustment problems.⁴ Associated with these were also the factors on external front as had been stressed: "The lag in export of less developed countries was mainly a reflection of relative sluggishness in external demand

emanating from the great industrial consumers".⁵ This lack of demand was primarily the outcome of "(1) a shift in the pattern of output in the industrial countries in favour of engineering, chemicals and other industries and services, which have high import content; (2) agricultural protectionism in the industrial countries; (3) a secular trend toward the uses of primary materials per unit of output of manufactures, and (4) a substantial substitution of synthetics for improved natural materials".⁶

III.1 Export Structure Diversification

In response to the supply and demand constraints since 1960s onwards, many developing countries (DCs) began to rely more on outward-oriented industrialization strategy and accordingly transformed their export structure. The share from primary commodities gradually declined in total export basket, where as, that from manufacturing increased progressively. During 1965-1985, the share from manufacturing in the low income developing countries increased from almost negligible to 65 per cent; in middle income developing countries from 24 to 50 per cent; and that in upper middle income developing countries from 32 to 57 per cent per cent. However, in developed market economies (DMEs) the corresponding share rose only from 76 to 81 per cent over the same time period. Thus, increase in share from manufactures was less significant in developed market economies (DMEs) than to that in developing countries

(DCs).⁷ In 11 leading developing countries (DCs), share of export from manufacturing accounted for about 80 per cent in 1975⁸, which further rose to 85 per cent in 1985.⁹

III.2 Shift in Comparative Advantage

Various reasons suggest themselves for this spectacular transformation of export structure. Some studies underlined the role of 'availability of low skills' rather than physical capital and technology, emphasising the developing countries's comparative advantage as determinants of growth of manufactures' export. This view point was in line with 'neo-factor proportion model' of international trade.¹⁰ On the contrary, other studies identified the physical capital, change in technology and R & D as principal causal factors for the shift in comparative advantage and consequently the change in export structure from labour-intensive traditional sector to capital-intensive non-traditional sector, although "very few small scale labour intensive goods were able to maintain their share of exports".¹¹ This view point was implicitly in line with the well known Leontief paradox.

The structure of comparative advantage of one country may, however, be different than the other country. Chenery and Keasing¹² divided 24 developing countries (DCs) into 4 groups on the basis of comparative advantage. Group I was described as relatively small economies, in which comparative advantage existed "in labour-intensive and technologically

mature products." The group II was those of large semi-industrial countries, which were comparatively efficient 'in capital and intermediate goods'. Economies under the group III were those, which comparatively specialised in labour-intensive energy based goods. Group IV included those 'large poor economies', which portrayed diversification in their exporting activities. In recent years, the export share from manufacturing improved in these countries, where as, that from traditional sector deteriorated. Seemingly, therefore, comparative advantage in developing countries not only confined in 'low skill' based traditional export but also in activities requiring greater skills and technology.¹³ Thus, "the pattern of developed/less developed country trade will come to resemble that of intra-developed country trade, with DCs specialising in the more standardised, less innovative portions of the same industries, rather than in different industries (as compared to industrialized nations). It will be special skills based on large scale R & D and marketing which will constitute the comparative advantage of developed countries with in each industry, and not skills in general, which had in the past ruled out certain industries from DCs altogether."¹⁴

III.3 Tariff and Non-tariff Barriers

This apparent change in export structure in developing countries (DCs) is also seen accompanied by the shift in

trade barriers pursued by many developed countries (DMEs). It is evident that before and after Tokyo round, weighted and average tariffs on finished and semi-finished goods of DCs have decreased. For example, weighed and average tariff declined from 8.9 per cent and 8.5 per cent to 6.7 and 5.8 per cent in EEC market; from 10.0 and 11.0 to 6.8 and 6.7 in Japan; and from 11.4 and 12.0 to 8.7 and 6.7 per cent in USA market respectively.¹⁵ However, over the years, when DCs became the exporters of manufactures in DMEs, the imposition of non-tariff barriers became more significant. The 'Hard Core' representing impact of all possible measures of non-tariff barriers (NTB) was found significantly higher on exports from DCs than to that from DMEs. For instance, in 1986, NTBs were 23 per cent on exports from DCs in EEC, which was 10 per cent higher than that imposed on exports from DMEs of 13 per cent. Corresponding NTBs in USA were 17 and 15 per cent respectively. However, NTBs were less on exports from DCs (22 per cent) in Japan, as compared to exports from DMEs (29 per cent). In all industrially advanced countries, the NTBs were 21 per cent on DCs's export, which were far higher than 16 per cent NTBs imposed on export from DMEs¹⁶.

These protective measures in the form of tariffs and non-tariffs, affected adversely the export interest to developing countries on a wide spectrum of commodities, ranging from traditional-resource-intensive-agro based products to non-traditional-technology and R & D intensive-engineering goods export. The export goods now facing

quantitative restrictions include : agricultural goods, cotton and non-cotton textiles, clothing, footwear, electronics, mechanical and engineering goods. Manufacturing goods which were at higher stages of processing and which enjoyed a liberal treatment previously are now a subject of severe quantitative restrictions.¹⁷

DMEs provided justification for their trade barriers on the ground that exports from DCs had been the principal cause for their internal structural adjustment problems, such as, high unemployment and intense competition. However, this is too far from reality as has been stressed : "Protection has not been particularly successful in maintaining jobs or reducing adjustment costs even in protected industry. For economy as a whole, because of inter-sectoral and macro-economic effects, it probably lowered employment. Few jobs have been saved and the costs have been inordinate."¹⁸ It, therefore, appears that imposition of quantitative restriction is deliberate, which has frequently been used as a 'scape goat' by DMEs to overemphasise their internal structural adjustment problem.¹⁹ Thus, the principal objective behind the protective trade barriers of DMEs has primarily been to discourage the exports of all kinds from DCs.

III.4 Preferential Schemes

In response to these protectionist tendencies, many DCs started demanding preferences from DMEs under various schemes. The Generalised Systems of Preferences (GSP) was one, which was implemented by EEC and Japan (1971), Nordic countries (1972) and United States (1974). Under GSP Scheme, 77 developing countries (DCs) were eligible for tariff preferences on "horizontal basis" for their industrial goods, exceptions were, however, textiles, leather, petroleum and selected agricultural goods. Preferences under MFN principle were based on 'non-reciprocity' and 'non-discriminatory' formulas. However, GSP was more on paper than in action. Different 'escape clauses' and 'restrictive criteria' were evolved to neutralise the benefits from GSP. For instance, EEC implemented "triggers" for the temporary suspension of preferences when imports reach to pre-determined level in the form of tariff quotas (sensitive products) tariff ceiling (special semi-sensitive products), ceilings (semi-sensitive and non-sensitive products), as well as maximum country limits."²⁰ Similarly Japan imposed ceilings on all industrial imports determined on the basis of past year's imports under the condition that preference had not exceeded to 50 per cent of the total imports. U S A also followed "competitive" under which GSP can be terminated if "GSP imports from any single beneficiary exceed \$ 25 million or 50 per cent of the total preferential imports of any particular products."²¹

Considering limitations of GSP scheme, many DCs appealed to DMEs that 'escape clauses' and 'restrictive criteria' need to be abolished and that this scheme should be extended on 'vertical basis' because different individual DCs are not equal in terms of their various characteristics. However, despite every efforts, little had been done in this direction, and as a step further, Lome convention came into force on 1 April, 1976 between EEC (6 industrial countries) and a group of African Caribbean and pacific (ACP) and 56 developing countries. Convention in the form of regional arrangement, primarily aimed to provide tariff and non-tariff preferences vertically for all products with exceptions of certain agricultural export-products. Besides, convention also proposed to provide financial and technical assistance with a view to encourage industrial cooperation through technology transfer and trade promotion through implementation of industrial projects. The most encouraging feature of this convention was the "Stabex" facility that proposed to stabilize the export earnings of primary export-products from DCs. However, like GSP scheme the well advanced objectives of Lome Convention were not implemented fully in practice and immediately after a year the textiles exports from Tunisia and Morrocco suffered considerably on account of 'safeguard' actions taken by EEC.

As such, successfulness of preferential schemes depended much on the qualified 'safeguard' clauses, M F N principle, reciprocity, stand-still, roll back, domestic legislation and

unfair trading practices, i.e., structural factors arising on account of DMEs and DCs. Thus, a concerted international action in these areas became inevitable step for strengthening the international trading system. The commitments to many of these issues enshrined in the Punta del Este declaration under Uruguay Round, stressed that "trade liberalisation in the areas of export interest to developing countries would relieve their foreign exchange constraint to growth which, in turn, would spur development. The developed economies would also benefit from such growth, as the developing countries would spend a significant proportion of their additional export earnings on imports of machinery and intermediate goods from the developed countries. Trade liberalisation in favour of developing countries would in all probability result in allocation of resources among the developed countries toward technologically intensive industries and increased factor productivity. Such opening up of the international trade regime could also help to improve the debt servicing capacity of developing countries, which could, in the longer run, lead to the resumption of financial flows. It is, therefore, necessary to find solutions to the problems faced by the exports of developing countries, for therein lies the clue to speeding up world economic growth and the development process"²². The Uruguay Round, therefore, offers "a myopic consideration to strengthen the whole fabric of multilateral

trading system, which would endorse the 'ambience of indiscipline' and ultimately to wreck the system".²³

Various proposals in December, 1989 and 1990 under Uruguay round have been put forward for trade liberalisation under non-discriminatory and MFN principles. These, however, have not been without a heavy cost of individual developing countries, which often have to accept unconducive conditions of IMF and World Bank under the acute pressure of US trade and investment policies. This is under the US 'Various Trade Act' provisions to open the market and finally the desire on the part of a number of developing countries to invite foreign direct investment by providing policy incentives of which trade liberalisation is one. In fact, even countries like India have offered to reduce tariffs by 30 per cent in the Uruguay Round.²⁴ A similar was also the case with 'reciprocity' argument. Until the end of Uruguay Round, in the year 1991, "India along with China and Thailand has been placed in the special 301 list for the persistent and acute nature of the problem as seen by the US. The US can impose 100 per cent duty on imports from India. The US believes that India's patent act of 1970 has led to piracy, counter trade, etc. The loss according to unofficial estimates, is between \$ 123 million and \$ 244 million".²⁵

Similarly, it seems difficult to retain the special and differential treatment accorded to developing countries after Uruguay Round. "First it is argued that S and D have little economic logic underlying it and it brings no major

improvement for the recipient developing countries. Second, the more developed countries among developing countries enjoying preferential access are the 'free riders' on the willingness of the developed countries to bear the onerous burden of liberal trade policies. Third, the S and D provisions help to keep developing countries not to ask for any S and D facility but join in active negotiations and develop comparative advantage and thus be more competitive in international operations. And fourth, this has led to the indiscipline and rising protectionism creeping in the trade policies of developed countries while at the same time the developing countries were campaigning for more differential treatment".²⁶ Therefore, various preferential schemes because of their inbuilt characteristics and instability could not accelerate the exports from developing countries into the developed market economies (DMEs).

IV. Summing Up:

The overview of trade performance during the period under review did not portray an impressive picture for developing countries. Export performance of developing countries in general and NONOPEC in particular lagged behind to that of developed market economies. However, the rate of growth in import required to boost domestic production and so to export was found just equal both in the developing and the developed countries. Merchandise trade position was seen

relatively better off in developed countries than to that in developing and the OPEC. Terms of trade worsened significantly in NONOPEC and marginally in DMEs, whereas, it improved in DCs, OPEC and the world as a whole. Relative Share of export in developing countries in general and the NONOPEC in particular in the world export fell down considerably, whereas, it improved in the developed countries. However, the decline in the share of export was more sharp in OPEC. The trade flows among the developing countries improved over the years and this was quite spectacular in the case of technology and R & D intensive export-goods like chemicals, machinery and transport equipment and other manufactures. The study, therefore underlined the poor trade performance record in developing countries vis-a-vis the developed countries. This in turn, created a serious crisis in the foreign exchange and thereby increased dependence of developing countries on the foreign assistance. The total long-term repayable external debt in developing countries shot up over 19 times from US\$ 46066 mill. in 1970 to US\$ 898041 mill. in 1989. Of which, long-term repayable principal amount rose up over 8 times from US\$ 5967 mill. to US\$ 50032 mill. The repayment of interest component of debt also shot up over 9 times from US\$ 5113 mill. in 1970 to \$ 46502 mill. in 1989.²⁷

It would imply that developing countries were oriented towards the import-linked export led foreign aid strategy for their economic development, which could be reverted back only

if export performance could be enhanced by adopting efficient production and trade policies. What is therefore required is an appropriate adoption of self-sustainable export-led growth strategy based on the availability of internal resources compatible with comparative advantage rather than depending too much on foreign-aid. It is not, however, an easy task. Under the emerging international trading system, most of the non-oil producing and exporting developing economies are the equal partners for their manufactured goods exports in the same industrialised country markets. Therefore, most of them have to compete with one another in the same market at the given ruling price to sell their products.

The prospect of export expansion from developing countries further weakens if international trading environment is taken into consideration. Various preferential schemes under GSP, Lome Convention and Uruguay Round were such that, because of their inbuilt limitations and instability, led to deterioration in exports rather than helping to increase the exports from developing countries. What is really distributing is the intensity of non-tariff barriers, which is generally high on the many export-products interest to developing countries. Where as, developed countries had been able to 'skip over' trade barriers by diversifying their export products and markets, the developing countries could not be able to counter such adverse effects.²⁸ This means that trade tensions between developed and developing countries will further deepen and,

therefore, developing countries will have to seek alternative market outlets for their exports. This would alternatively lead the expansion of trade among developing countries through various ways and means. May be that such countries may form a trade cooperation among themselves.

However, the unresolved but most fundamental issues are as to what should be the basis or appropriate guidelines for trade cooperation? Whether trade cooperation would be determined appropriately by comparative cost principle or competitiveness criterion or some other economic criteria are of utmost importance. Chapters to follow will discuss some of these issues and the next chapter III examines the nature of comparative advantage of commodities in selected newly industrialising developing countries (NICs) to serve as a basis for trade cooperation.

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CHAPTER III

COMPARATIVE ADVANTAGE AND TRADE COOPERATION

I. Introduction

It has been experienced that newly industrializing developing countries, have encouraged the resource scarce technology - intensive - non-traditional goods export, whereas, discouraged the resource-intensive traditional goods exports have been discouraged simultaneously. This poses a relevant question as to why trade policies in NICs are designed favourably to promote the exports from non-traditional sector as compared to that from traditional sector? Is this kind of trade strategy and the consequent pattern of resource allocation explainable in terms of pattern of commodity specialisation based on resource endowment structure as reflected by comparative cost advantages? What are the export-commodities, in which NICs possess comparative advantage vis-a-vis the rest of the world? And based on such measure, what are the export commodities in which the trade cooperation among NICs may be

formed. Trade flows as such constitute "the net result of (i) the ideal comparative advantage based on resource endowment structure, and (ii) the distortions introduced by trade policies, such as, controls, quota restrictions, tariffs, licensing system, subsidies, export promotional incentives etc".¹ This chapter, therefore, aims at examining the (i) pattern of comparative advantage, (2) complementarity and competitiveness of export-commodities, (3) nature of factor endowment structure, (4) export-supply and import-demand structure and, (5) intra-NICs trade cooperation.

II. Structural Diversification: Commodity Composition of Exports

Table-III.1 examines the export structure of selected NICs, such as, Argentina, Brazil, India, Israel, Korea Republic, Malaysia, Pakistan, Singapore and Turkey. Similar exercise for 3 NICs (Bangladesh, Nigeria and South Africa) proposed earlier (in Chapter-I) was dropped because relevant information could not be found readily available on a continuous basis from the secondary sources.. Table-III.1 records the export structure of all NICs, while similar information has been recorded in Appendices III.1.1 to III.1.9 for individual NICs.

Table - III.1 : Export Structure of Newly Industrializing Developing Countries Over Time.

SITC No.	Commodities	Years' Average			
		1969- 72	%	1974- 76	%
0.0	Food and live animals	4120.30	32.98	842.14	23.76
1.0	Beverages and tobacco	225.08	1.80	613.56	1.73
2.0	Crude materials in- edible except fuels	3034.97	24.30	5754.05	16.24
3.0	Minerals, fuels, lu- bricants and related materials	533.93	4.28	2794.72	7.89
4.0	Animal vegetable oils and fats	301.78	2.42	1162.71	3.28
5.0	Chemicals	281.83	2.26	957.32	2.70
6.0	Manufactured goods cl- assified by materials	2658.55	21.29	7373.64	20.81
7.0	Machinery and transport equipment	521.30	4.17	3939.01	11.11
8.0	Miscellaneous manufactu- red articles	716.38	5.74	4066.28	11.47
9.0	Goods not classified by kind	94.86	0.76	358.26	1.01
Total		12488.98	100.00	35440.69	100.00

Contd...

Table-III.1 Contd....

SITC No.	Commodities	Years' Averages			
		1979- 82	%	1984- 87	%
0.0	Food and live animals	18572.63	19.82	19255.05	14.86
1.0	Beverages and tobacco	1055.83	1.13	1216.73	0.94
2.0	Crude materials in- edible except fuels	11138.46	11.88	11054.91	8.53
3.0	Minerals, fuels, lu- bricants and related materials	9288.52	9.91	10812.12	8.34
4.0	Animal vegetable oils and fats	2927.15	3.12	3409.50	2.63
5.0	Chemicals	36669.01	3.91	6469.01	4.99
6.0	Manufactured goods cl- assified by materials	19109.95	20.39	25664.03	19.81
7.0	Machinery and transport equipment	15940.98	17.01	30758.56	23.74
8.0	Miscellaneous manufactu- red articles	10602.60	11.31	19098.37	14.74
9.0	Goods not classified by kind	1421.49	1.52	1838.41	1.42
Total		93726.62	100.00	129577.39	100.00

Source : Commodity Trade Statistics, United Nations, Year Book of International Trade Statistics, United Nations and Monthly Statistics of Foreign Trade of India, DGCI & S, Calcutta, Various issues.

The process of export expansion was generally accompanied by structural changes in the commodity composition of export. The share of exports from traditional goods continuously declined, whereas that from non-trationals improved. For example, at 1 digit SITC level, percentage share of export of food and live animals (0.0), which was 32.98 per cent in 1969-72, 23.76 per cent in 1974-76 and 19.82 per cent in 1979-82 fell down to 14.86 per cent in 1984-87 in NIC's total export. A similar was also the case in manufactured goods classified by materials (6.0), in which export share fell down in 1984-87 at 19.81 per cent as against 21.29 per cent in 1969-72, 20.81 per cent in 1974-76 and 20.39 per cent in 1979-82. Similarly, the share of export of crude-materials (2.0) declined continuously from 24.30 per cent in 1969-72 to 16.24 per cent in 1974-76, 11.88 per cent in 1979-82, and 8.53 per cent in 1984-87.

Major shift in export diversification was caused by the increase in the share of machinery and transport equipment (7.0), chemicals (5.0) and miscellaneous manufactured articles (8.0). In particular, it was quite sharp in machinery and transport equipment (7.0), in which the share of export rose from 4.17 per cent in 1969-72 to 11.11 per cent in 1974-76, 17.01 per cent in 1979-82, and 23.74 per cent in 1984-87. Similarly, export share in chemicals (5.0), rose continuously from 2.26 per cent in 1969-72 to 2.70 per cent in 1974-76, 3.91 per cent in 1979-82 and to 5 per cent

in 1984-87. Similarly, in miscellaneous manufactured articles (8.0) it picked up from 5.74 per cent in 1969-72 to 11.47 per cent 1974-76 and to 14.74 per cent in 1984-87 (Table-III.1).

There were, however, interesting variations in commodity composition of exports by NICs. As for example, share of export in food and live animals (0.0) fell down in Brazil, Argentina and Israel. The same was also found true in beverages and tobacco (1.0) in India, Korea Republic and Israel; in crude materials (2.0), in India, Korea Republic and Malaysia; and in manufactured goods (6.0) in Pakistan, Malaysia and Israel. However, export share improved in manufactured goods (6.0) in Brazil and Argentina and in crude-materials (2.0) in Argentina.

The deteriorating share of export in traditionals was seen accompanied with the rise in export share in non-traditionals in most of NICs. As for example, export share improved continuously in chemicals (3.0) in India, Brazil, Korea Republic and Israel; in machinery and transport equipment (7.0) in Singapore, Korea Republic, Turkey, Malaysia, Israel and India; and in miscellaneous manufactured articles (8.0) in Brazil, Singapore, Pakistan and Turkey. Broadly speaking, the export share from traditionals registered a down ward trend at the time when the export share from non-traditionals was increasing.

III. Comparative Cost Advantage: A Relevant Literature Review

What factors tend to determine the trade flows between countries is still a subject of lively debate and discussion among the trade theorists.² Ricardo's theory of comparative advantage, derived from the theory of value, described the international factor productivities as determinant of trade between countries. This theory, based on too simplistic two-country - two-commodity model, ascribed differences in labour factor productivity as explanation of trade. Derived there from, it was held that a country should export those goods in which it possessed comparative labour cost advantage, while reciprocally import those goods portraying comparative labour cost disadvantage. Under classical wisdom, the comparative cost theory is thus determined by 'differences in international labour productivities', which, in turn, is determined by 'international division of labour' and 'economies of scale' on account of 'learning by doing' and availability of labour. Over time, relaxing the assumptions of 'differences in production techniques' and 'heterogeneity of factors' from Ricardo's, another land mark in the trade theory was provided by neo-classical trade theorists in the form of factor proportions with which Heckscher (1919),³ Ohlin (1937)⁴ and Samuelson (1948)⁵ were prominently associated.

According to Heckscher - Ohlin (H-O) model, a country specialises and exports those products the production of which requires relatively more abundant and cheap factor, where as, imports those products, which embody relatively more scarce and expensive factor of production. In H-O model, therefore, comparative abundance of factor, which, in turn, determines the cost of factor of production, has been held as determinant of trade behaviour. Theory of comparative advantage both in its classical and neo-classical treatment, thus, implies as to how the flows of trade are determined by the micro and macro economic efficiency. It is, therefore, a transaction between efficiency and inefficiency of factors and commodities between the two countries.

Soon after the development of H-O model, its empirical validity and unrealistic assumptions became the subject of frontal attack by trade economists. Factor price-equalisation by Samuelson (1948)⁶, extension of H-O model to more than two factors and commodities by Jones (1956)⁷ Leontief's paradox (1953)⁸ and factor intensity by Larry and others (1968)⁹ were some examples to conform as to how H-O model was questioned on theoretical and operational grounds. For instance, Leontief¹⁰ discovered that where as export of US was labour intensive, her import was capital intensive, which was just in opposition to the H-O model. The empirical validity of Leontief was, however, further challenged¹¹, which once again went back to support the H-O model

indicating that whereas export of developing countries was labour-intensive, their import embodied capital as principal and scarce factor of production.

There has been further developments under H-O premises, which provided deeper insights on the determinants of trade behaviour. One such approach was the introduction of human skills, which demarcated the "skill-content in the labour input as a separate factor of production.... This skill content is an asset of labour and is equivalent to physical capital and may be referred to as human capital. The modified capital intensity of a product is defined by the ratio of total to physical and human capital to 'pure' labour input".¹²

There have been further sporadic efforts to explain trade behaviour among which mention must be made to 'product cycle theory' and 'availability hypothesis'. "Successive stages of standardisation characterise the product cycle. Initially a new good is made in small lots, each firm with its own variety. Manufacturing processes are highly experimental; many different techniques are given in try. But as markets grow, changes take place; national and international specifications are agreed upon. Simultaneously, the number of processing technologies decreases as inferior methods are weeded out. The surviving techniques grow more familiar and marketing channels become better established. The expansion of output transforms the items from "side line" to "main line" status... The product

cycle accounts and technological gap accounts clearly belong to same family. Both stresses the sequential development of production theory. But while the technological gap emphasises time, product cycle emphasises the transition from product differentiation to product standardisation".¹³ According to product cycle model, a product has three stages. At the first stage, the composition of workforce in terms of relative proportion of highly skilled compared to unskilled workforce in the process of production is a basic criterion. At the second stage, although the tendency is more towards the use of capital and high level of managerial skills but their combination declines compared to the first stage. At the third stage, the capital and managerial skills are combined with unskilled labour force to produce the output.

Hirsch¹⁴ strongly feels that developed countries should concentrate their exports on "new" and "grown" products that command abundance of 'engineering know-how', capital and management, while developing countries on "mature products" requiring more of unskilled labour. This again supports the factor proportion theory. The 'availability hypothesis' provides, by and large, the similar explanation for trade behaviour. According to this, a country should import those goods that are not available domestically which, in turn, should export those that are abundance in the home market¹⁵ It is viewed that "natural resources, innovation (technological progress) and product differentiation are determinants of availability"¹⁶.

In the above discussions, 'natural conditions' in the classical theory, 'relation between capital and labour' in neo-classical theory and 'skill factor in relation to capital and labour' in product cycle theory had been held as major determinants of comparative advantage and, therefore, the country's trade pattern. Hirsch (1974)¹⁷ going a step further classified export-commodities under three categories, such as, (1) Ricardo goods, (2) Heckscher-Ohlin goods and (3) product cycle goods. Primary commodities, requiring relatively more of natural factor endowment, are classified under Ricardo goods, while manufacturing goods, requiring more of technology and R and D, under H-O goods. Trade in manufactures between developed and developing countries (North-South trade) or (South-North trade) is the example of H-O model. Products other than above have been put under product cycle on the basis of recent innovations, research and development. Thus, "product cycle goods are distinguished from Heckscher-Ohlin goods by the fact that production functions of new goods vary from country to country and because the cost of international technology transfer is likely to be high. To establish comparative advantage in new goods, it is not sufficient to compare the relative shares of capital, unskilled and skilled labour needed in several countries. The cost of technology transfer must be added to calculate comparative costs"¹⁸.

IV. Measurement of Comparative Advantage: Some Discussions

Invariably, almost all studies on comparative advantage faced the severe problem of measurement. Alternative approaches were employed for estimating the comparative advantage, such as, (1) input-output technique,¹⁹ (2) factor intensity through elasticity of substitution,²⁰ and (3) export performance index.²¹ As far as the first and second approaches are concerned, a number of criticisms has been offered. The most common among all is that these have overemphasised cost elements, which have ignored the consideration of non-price factors. For instance, it is held that : "cost considerations will not be sufficient... and a complete explanation of comparative advantage would have to take account of the effects of non-price factors".²²

Export performance index is yet another method used for measuring the comparative cost advantage of a country vis-a-vis the others. It reflects all types of costs and non-price factors "like good will, quality, service facilities, etc. Since this pattern in comparative advantage is revealed by the observed pattern of trade flows, it is called revealed comparative advantage. Thus, the increase in export performance index of the exporting country as compared to competitor country or country's group reflects the increase in exporting country due to the effect of revealed

comparative advantage. The mean of revealed comparative advantage, a part from considering the 'relative cost element' also captures the "differences in non-price factors".²³ Thus, by including the cost and non-price factors, this method makes the departure from the earlier methods. In view of this, we make the use of export performance index, which is worked out by using the following well known Balassa's method:²⁴

$$EPI = \frac{1}{2} \left[\frac{e_{ij}(1)}{e_j(1)} + \frac{e_{ij}(1)}{e_j(1)} \left(\frac{e_{ij}(1)}{e_{ij}(0)} / \frac{e_j(1)}{e_j(0)} \right) \right]$$

Where,

$e_{ij}(0)$ = Average share of j th country in the total export of i th commodity in the base year;

$e_j(0)$ = Average share of all commodities of the exporting country in the base year;

$e_{ij}(1)$ = Average share of j th country in the total export of i th commodity in the current year; and

$e_j(1)$ = Average share of all commodities of the exporting country in the current year.

Thus, by using the above method, it is possible to compare the export performance index of the exporting country vis-a-vis the competitive countries. In the present study, export performance index has been separately worked out for selected NICs (Argentina, Brazil, India, Israel, Korea

Republic, Malaysia, Pakistan, Singapore and Turkey). Each of the NICs has been separately considered as exporting country, whereas, rest of the world as a unit of competitors. Present study captures more recent periods, which includes the averages of (1) 1969-72 to 1974-76, (2) 1974-76 to 1979-82 and (3) 1979-82 to 1984-87. Studies covering earlier periods are also available.²⁵ Present study uses data at 3 digit levels of SITC groupings. Data beyond this level are not found available on a consistent basis from published sources. Commodity Trade Statistics, Year Book of International Trade Statistics, and Year Book of Industrial Statistics, by United Nations World Tables, by World Bank and Monthly Statistics of Foreign Trade of India, by DGCI & S, Calcutta have been used as basic sources of information.

V. Top 50 Commodities with Revealed Comparative Advantage

For examining the pattern of revealed comparative advantage, export performance indices of 270 commodities for each selected NICs have been worked out.* Such commodities correspond to 3 digit levels of SITC groupings, the description of which has been provided in Appendix-III.3. Analysis of tables - III.2, III.3 and III.4 portrays the

*Export performance indices of 270 export-commodities worked out can be obtained from the author on request.

revealed comparative advantage of top 50 commodities according to rank of export performance indices.

V.1 First Period (1969-72 -1974-76)

In the first period, all 50 products, both from traditional²⁶ and non-traditional²⁷ groups, show the revealed comparative advantage vis-a-vis the rest of the world. These commodities, in 1974-76 accounted for over 85 per cent in Argentina, 56 per cent in Brazil, 45 per cent in India, 77 per cent in Israel, 74 per cent in Korea Republic, 89 per cent in Malaysia, 75 per cent in Pakistan, 62 per cent in Singapore and 43 per cent in Turkey of each country's aggregate export. Among the 9 NICs, 6 NICs show the revealed comparative advantage vis-a-vis the rest of the world on varieties of products in traditional sector, although products from non-traditional sector have also shown the potential. For example, 34 traditional goods in Argentina and India, showing the revealed comparative advantage, accounted for over 90 per cent and 60 per cent of country's traditional sector export respectively. Similar products are 24 in Israel, 23 in Brazil, 35 in Malaysia and 38 in Pakistan, which have accounted for over 88 per cent, 63 per cent, 92 per cent and 77 per cent respectively of country's traditional sector export. The revealed comparative advantage in these NICs on traditional goods sector has confined partly in the products under food and live animals

(0.0), beverages and tobacco (1.0), crude materials (2.0), animal vegetable oils and fats (4.0) and largely in manufacturing goods classified by materials (6.0).

As pointed out earlier, the revealed comparative advantage is the net result of (a) the ideal pattern of comparative advantage determined by resource structure, and (b) trade policies. The findings of the study, showing the revealed comparative advantage in traditional sector do, therefore, emphasize the advantages arising on account of country's resource endowment structure. It is, however, sufficient to note that the revealed comparative advantages in traditional sector are largely pronounced in manufacturing items.

In sharp contrast to above, revealed comparative advantage vis-a-vis the rest of the world in Korea Republic, Singapore and Turkey is seen confined largely on products under non-traditional sector, yet products from traditional sector have also shown the potential. It is evinced that 23 non-traditional goods in Singapore, 15 in Korea Republic and 12 in Turkey with revealed comparative advantage accounted for 72 per cent, 76 per cent and 83 per cent of country's non-traditional sector export respectively (Table-III.2). This suggests that the distortions introduced by incentives, subsidies and other policy stimuli have brought the certain non-traditional items with revealed comparative advantage but the influence has been selective and confined to certain commodities in chemicals (5.0), machinery and transport

Table-III.2 : Ranking of Export Performance Indices in Selected NICs Vis-a-Vis the Rest of the World According to Export Performance Indices: 1969-72 - 1974-76

Rank of export Perfor- mance indices	Countries and SITC Commodity Code Numbers								
	Argen- tina	Brazil	India	Israel	Korea Rep.	Malay- sia	Paki- stan	Singa- pore	Turkey
1	024	221	863	561	893	422	321	582	052
2	045	422	074	667	666	242	212	285	521
3	044	282	681	961	731	861	042	332	665
4	041	071	282	271	941	231	267	735	122
5	532	071	896	513	679	687	676	735	122
6	023	073	733	266	111	431	046	689	212
7	048	712	717	682	696	243	657	718	276
8	062	553	672	581	831	722	091	241	283
9	262	081	673	698	642	275	675	864	291
10	054	251	051	571	674	266	275	729	692
11	512	672	613	025	851	031	411	541	684
12	611	265	685	251	012	911	341	676	261
13	112	061	513	514	632	273	274	022	055
14	211	053	061	684	629	812	022	046	664
15	715	582	691	023	894	331	686	931	664
16	081	843	667	553	694	075	263	091	657
17	725	642	533	892	662	025	652	675	332
18	554	013	654	112	891	675	122	533	697
19	719	941	693	292	653	689	284	275	661
20	263	286	661	512	032	284	864	411	121
21	723	633	571	692	842	553	689	715	895
22	051	099	514	053	693	862	611	341	054
23	022	611	292	678	099	714	661	211	651
24	073	657	712	733	766	734	734	732	671
25	621	262	411	717	654	112	292	725	263
26	895	121	276	896	612	631	674	274	062
27	121	656	283	712	663	048	664	719	112
28	422	621	725	695	899	692	911	686	656
29	695	011	553	897	673	072	899	641	011
30	541	612	291	533	723	581	331	724	211
31	613	652	121	062	697	062	112	554	046
32	055	733	911	054	897	032	211	531	841
33	276	292	718	711	841	053	678	551	262
34	292	898	662	895	821	251	243	284	292
35	732	613	054	051	651	231	554	714	732
36	431	653	671	663	951	664	023	075	613
37	892	863	812	263	273	719	456	693	652

Table-III.2 contd....

38	531	515	075	276	678	571	075	691	715
39	655	718	612	055	864	599	631	695	812
40	011	284	841	812	655	821	431	722	273
41	712	715	715	554	631	712	621	599	599
42	513	719	687	011	031	283,684	895	712	718
43	032	821	655	732	672	054	231	275	641
44	663	841	554	723	724	265	512	631	642
45	694	831	071	719	267	652	421	895	053
46	122	273	693	734	641	679	024	331	663
47	722	667	664	551	892	283	841	734	512
48	031	514	532	714	661	663	099	048	541
49	281	513	273	931	664	851	831	664	851
50	678	055	732	656	621	691	048	892	899

Source: Commodity Trade Statistics, United Nations, Year Book of International Trade Statistics, United Nations and Monthly Statistics of Foreign Trade of India, DGCI & S, Calcutta, Various Issues.

equipment (7.0) and in miscellaneous manufacturing goods (8.0). This tends to suggest that trade regime has to be selective and discriminatory rather than that of general determined on the basis of production structure of specific commodity groups.

V.2 Second Period (1974-76 - 1979-82)

Table-III.3 summerises the result of revealed comparative advantage of NICs vis-a-vis the rest of the world during second period. During 1974-76 to 1979-82, top 50 products with revealed comparative advantage vis-a-vis rest of the world, accounts for over 65 per cent in Argentina, 53 in Brazil, 65 in India, 47 in Israel, 42 in Korea Republic, 44

Table-III.3 : Ranking of Export Performance Indices in Selected NICs Vis-a-Vis the Rest of the World : 1974-76 - 1979-82

Rank of export Perfor- mance indices	Countries and SITC Commodity Code Numbers								
	Argen- tina	Brazil	India	Israel	Korea Rep.	Malay- sia	Paki- stan	Singa- pore	Turkey
1	221	243	896	271	961	091	321	931	052
2	411	251	074	268	951	223	032	723	051
3	613	265	843	516	034	621	861	111	276
4	332	572	611	515	516	043	241	911	651
5	262	718	672	516	941	264	657	231	041
6	599	582	844	898	661	633	231	683	055
7	521	735	698	222	693	022	683	023	725
8	684	733	654	582	672	072	023	554	689
9	284	713	122	721	666	047	012	012	651
10	031	631	075	024	851	098	276	685	054
11	055	731	121	098	691	098	685	264	263
12	211	892	541	699	653	692	633	633	242
13	422	736	261	667	677	872	341	241	266
14	719	242	321	681	831	048	841	341	657
15	512	043	061	062	842	282	042	821	513
16	561	284	099	894	715	895	031	048	421
17	532	052	612	695	697	723	431	553	665
18	551	719	676	684	696	274	046	892	551
19	051	282	671	621	678	664	656	533	629
20	725	071	667	686	675	893	043	431	656
21	514	712	043	263	282	716	682	721	053
22	714	422	571	292	892	111	222	721	655
23	723	723	531	054	694	553	025	211	046
24	011	073	721	716	625	683	022	046	112
25	061	423	657	693	266	431	891	895	262
26	013	025	658	521	514	685	274	513	717
27	242	721	291	655	582	669	273	682	671
28	263	285	812	893	681	046	261	112	722
29	053	099	553	682	673	721	899	062	729
30	722	522	724	223	686	852	515	699	732
31	681	011	048	821	641	982	735	687	711
32	861	715	081	896	656	099	055	893	099
33	715	013	023	051	098	642	722	692	048
34	729	513	263	267	663	653	571	665	075
35	891	081	223	872	872	554	291	098	642
36	718	725	699	011	642	062	651	222	662

Table-III.3 Contd.....

37	664	276	651	642	267	899	332	025	719
38	283	656	664	895	674	663	871	267	724
39	686	333	533	531	689	533	099	075	321
40	897	675	716	714	562	572	729	642	842
41	734	726	897	551	682	273	684	726	514
42	032	012	692	657	812	894	629	291	895
43	044	821	041	112	273	551	599	073	532
44	685	611	022	663	716	676	719	655	718
45	421	672	697	662	662	267	696	274	892
46	711	044	893	122	899	677	664	274	045
47	054	642	892	842	268	651	024	551	893
48	678	677	034	911	062	112	024	044	422
49	698	514	431	718	679	024	262	689	074
50	581	031	662	843	698	111	112	662	712

Source: Commodity Trade Statistics, United Nations, Year Book of International Trade Statistics, United Nations and Monthly Statistics of Foreign Trade of India, DGCI & S, Calcutta, Various Issues.

in Malaysia, 40 in Pakistan, 51 in Singapore and 77 per cent in Turkey in 1979-82 of country's total export.

structural transformation, however, took place in comparative advantage in few NICs.²⁸ Revealed comparative advantage confined earlier on non-traditional sector goods in Singapore, Turkey and Korea Republic shifted in favour of traditional goods export. For example, 34 traditional goods in Singapore, 31 in Turkey and 34 in Korea Republic with revealed comparative advantage vis-a-vis the rest of the world, now accounted for over 54 per cent, 60 per cent and about 63 per cent of country's traditional sector export

respectively. The revealed comparative advantage in remaining NICs (Brazil, India and Israel) continued to be confined on the traditional sector goods. For instance, 27 traditional goods in Brazil, 27 in India and 29 in Israel, showing revealed comparative advantage vis-a-vis the rest of the world, accounted for over 43 per cent, 63 per cent, and over 73 per cent of each country's sectoral export respectively. The revealed comparative advantages in these NICs confined on manufacturing items (6.0), food and live animals (0.0), beverages and tobacco (1.0), crude materials (2.0) and animal vegetables oils and fats (4.0), have primarily been on account of country's existing resource endowment structure. It may be mentioned that capital per employee in US \$ declined in Brazil from 100 as a base in 1975 to 77.13 in 1980, 63.96 in Israel, 91.80 in Korea Republic and 65.15 in Turkey. It implies that these NICs have taken the advantages in terms of country's cheap labour by pursuing labour-intensive techniques of production. The general findings thus suggest that these NICs too the advantage on account of country's existing endowment structure.

Revealed comparative advantage confined earlier on traditional sector goods in Malayasia, Pakistan and Argentina are seen shifted on the non-traditional sector goods. For example, 29 non-traditional goods in Argentina, 15 in Malaysia and 13 in Pakistan, with revealed comparative advantage vis-a-vis rest of the world, accounted for over 66

per cent, 40 per cent and 71 per cent of each country's sectoral export. (Table- III.3). Such a transformation in revealed comparative advantage from traditional to non-traditional sector goods is primarily the outcome of (a) factor endowment structure and (b) trade policies, such as, subsidies, and various export promoting measures including tariff and non-tariff barriers. Capital in US \$ per employee increased in Argentina by over two and half times 1975 as a base from 100 to 254.22 in 1980; in Malaysia by 2.30 times 100 to 230.55 and that in Pakistan by 5.61 times from 100 to 561.53.²⁹ It appears that these NICs pursuing capital-intensive technique of production, have taken the advantage arising on account of import of capital and technology, besides export promotional incentives . (Table-III.3).

V.3 Third Period (1979-82 - 1984-87)

During final period (1979-82 - 1984-87), top 50 products with revealed comparative advantage accounted for 68.42 per cent in Argentina, 40.04 per cent in Brazil, 80 per cent in India, 59.39 per cent in Israel, 49 per cent in Korea Republic 63.01 per cent in Malaysia, 71.05 per cent in Pakistan, 43.73 per cent in Singapore and 61.45 per cent in Turkey of Country's aggregate export.

During this period revealed comparative advantage also shifted across the commodities and NICs. Revealed comparative advantage shifted from non-traditional to traditional sector goods in Pakistan, Malaysia and Argentina, whereas, vice-versa situation prevailed in Turkey and Korea Republic, although revealed comparative advantage in India, Brazil, Singapore and Israel was retained on traditional product exports. For example, 29 non-traditional products in Korea Republic and 18 in Turkey accounted for 55 per cent and 68 per cent of country's sectoral exports respectively. Korea Republic, for instance, received the rank (1) in lorries special motor vehicle (782); (2) in footwear (851); (4) in travel goods, hand bags (831); (8) in transistors valves (776); and (9) in office machines etc. (751). The rank of similar commodities was, however, found to be lower in most of NICs. Similarly, Turkey received a higher rank of (8) in meters and counters (873); (18) in agricultural machinery excluding tractors (721) etc. The ranks for similar commodities was found to be lower in many NICs.

Revealed comparative advantage confined on non-traditional goods in Korea Republic and Turkey, appears mainly as the result of country's factor endowment structure and the influence of trade regime. In Korea Republic the indices of capital per employee in US \$ shot up for about 4 fold from 1980 as a base to 382.79 in 1986, while in Turkey by 1.38 times to 137.94 in 1986.³⁰ It suggests that revealed comparative advantage on non-traditional goods has mainly

been on account of advantages in terms of economies of scale arising to the existing and imported capital and technology.

As against above, revealed comparative advantage vis-a-vis the rest of the world in Argentina, Brazil, Israel, India, Malaysia, Singapore and Pakistan is seen confined largely on products in traditional sector, though products from non-traditional sector have also shown the potential. For instance, 34 traditional products in Argentina, 39 in Brazil, 27 in India, 21 in Israel, 31 in Malaysia, 26 in Pakistan and 24 in Singapore with revealed comparative advantage accounted for 72.53, 50.17, 84.00, 62.60, 65.09, 83.86 and 60.79 per cent of country's sectoral export respectively (Table-III.4). India received top rank of (1) in meat prepared, preserved (014); (2) in textile articles (658), (3) in barely unmilled (043), (5) in cotton fabrics woven (652); (6) in tea and mate (074) etc. The rank of corresponding commodities was, however, found to be lower in rest of NICs. Similarly, Argentina occupied top rank of (1) in maize unmilled (044); (2) in cereals nes unmilled (045); (3) in wheat etc. (041); (4) in seeds for soft drink (222); (5) in fixed vegetable oils etc. (423) etc. Rank for respective commodities was found lower in most of NICs (Table-III.4). A similar pattern also emerged in the rank of export performance indices in remaining NICs for traditional commodities.

Table-III.4: Ranking of Export Performance Indices in Selected NICs Vis-a-Vis the Rest of the World : 1979-82 - 1984-87

Rank of export Perfor- mance indices	Countries and SITC Commodity Code Numbers								
	Argen- tina	Brazil	India	Israel	Korea Rep.	Malay- sia	Paki- stan	Singa- pore	Turkey
1	044	422	014	271	782	341	659	931	278
2	045	721	658	667	851	333	263	971	025
3	041	631	043	773	911	247	023	335	269
4	222	482	599	516	831	424	246	122	951
5	423	423	652	872	654	289	241	211	046
6	014	231	074	721	676	872	012	736	686
7	024	276	895	058	691	232	652	515	266
8	267	863	689	882	776	248	584	773	873
9	592	572	891	695	751	772	323	655	056
10	244	243	279	523	697	628	233	288	665
11	585	099	842	716	898	431	268	892	091
12	411	265	075	898	715	072	572	725	054
13	611	619	642	091	625	037	658	245	659
14	081	723	056	267	831	223	872	023	673
15	823	672	712	681	244	284	274	598	411
16	882	513	783	885	844	777	583	554	664
17	511	842	533	682	793	323	613	241	267
18	784	712	657	741	764	634	713	334	721
19	061	683	585	073	693	269	737	111	291
20	034	281	698	884	786	011	591	634	513
21	522	011	873	759	062	635	743	112	121
22	058	715	821	562	883	782	223	012	846
23	335	718	273	663	861	274	611	716	862
24	056	061	323	971	874	553	022	054	675
25	251	081	041	292	774	762	112	911	672
26	674	562	841	728	661	723	726	541	037
27	513	047	727	098	771	282	634	516	523
28	057	261	621	522	752	613	759	687	812
29	011	699	791	894	679	874	686	742	848
30	035	673	287	278	789	287	685	759	058
31	267	657	036	897	677	022	035	323	561
32	043	685	745	736	712	025	778	233	724
33	233	726	611	025	056	773	882	553	652
34	752	689	911	514	885	726	511	743	048
35	523	121	612	792	531	554	683	048	658
36	612	684	551	714	653	911	791	583	692
37	742	663	651	621	812	261	061	073	024
38	655	533	896	693	744	061	745	726	678

Table III.4 Contd.....

39	551	071	592	513	951	671	678	572	551
40	743	675	847	541	761	713	847	514	774
41	572	553	281	512	792	793	651	713	843
42	713	642	223	685	294	046	896	752	682
43	062	292	848	269	845	598	777	274	322
44	036	613	035	048	681	047	881	699	845
45	591	725	267	848	846	098	795	022	742
46	042	612	516	893	685	881	532	882	522
47	022	551	897	679	663	612	663	613	749
48	112	072	263	598	896	761	042	695	784
49	054	514	012	742	784	572	291	641	844
50	941	716	726	641	518	591	762	726	674

Source: Commodity Trade Statistics, United Nations, Year Book of International Trade Statistics, United Nations and Monthly Statistics of Foreign Trade of India, DGCI & S, Calcutta, Various Issues.

Revealed comparative advantage in 7 NICs lying on the traditional sector goods under the broad groups of manufactured goods classified by materials (6.0), food and live animals (0.0), beverages and tobacco (1.0), crude materials (2.0) and animal vegetables (4.0), appears to be mainly the result of country's factor endowment structure and trade policies. Empirical evidences show that indices of capital per employee in US \$ in Malayasia remained at 20 per cent³¹ and that in Singapore about 50 per cent in 1986 as compared to 1980.³² It has mainly been on account of country's cheap labour arising on account of intensive use of labour as a factor of production. Besides above, Pakistan also reduced the average tariff rates in 1990s. Argentina

and India similarly, followed the package of export promoting measures under the liberalisation programme. Thus, revealed comparative advantage relying on several traditional sector goods has partly been on account of country's labour cost advantages and partly to the distortions introduced in the trade policies.

VI. Revealed Comparative Advantage Under Dynamic Framework

This section attempts to identify the export-commodities (1) which retained their revealed comparative advantage, (2) portrayed shift in their revealed comparative advantage and (3) new commodities emerged with revealed comparative advantage. This assumes significance because changing pattern of comparative advantage is normally accompanied with changing pattern of factor endowment structure. Such analysis has been presented in Appendices-III.2.1 to III.2.9 and the summary is given in Table-III.5.

VI.1 Retention of Export-Products With Revealed Comparative Advantage

Several products in traditional as well as in non-traditional sectors retained their revealed comparative advantage over time. For example, 5 export-commodities in traditional sector (fertilizer crude (271), mineral manufacture (663), pearl precious, semi-precious stones

(667), copper (682) and tools (695) and one in non-traditional sector (engines and motors (714) in Israel; 4 in traditional sector (cereals, etc. (048), hides and skins (211), fuel wood and charcoal (241), sulphur (274) and 2 in non-traditional sector (pigments paints (533) and printed matter (892) in Singapore portrayed revealed comparative advantage on a continuous basis.

Such products in Brazil are 8 in traditional sector, such as, meat fresh (011), coffee and substitute (071), feeding stuffs (081), food preparations (099), vegetable fibres (265), fixed vegetable oils (422), paper (642), vegetable fibres (265), fixed vegetable oils (422), paper (642) and iron and steel (672) and 6 in the non-traditional sector viz: carboxylic acids (513), nitrogen function and compounds (514), products of condensation (582), steam engines (712), other power generating machinery (718), and machinery non-electric (719). Similarly, such products in Malaysia include: cocoa (072) and processed animal vegetable oil (431) under the traditional and perfumery cosmetics (553) under the non-traditional sector; in Turkey wheat etc. (046), vegetable etc. (054) and textile yarn (651) under the traditional sector; in Pakistan milk and cream (022), butter (023), rice (042), alcoholic beverages (112) and sulphur (274) in the traditional sector while clothing (841) in the non-traditional sector; and in Korea Republic, woven man made (653), lime, cement, building products (661), mineral manufactures (663), iron and steel castings (679), wire

products (693), steel copper, nails nuts (694) and base metal household equipment (697) in the traditional sector, while travel goods (831) and footwear (851) in the non-traditional sector. Similarly, such products in are: (meat fresh, chilled frozen (011), maize unmilled (044) and vegetable etc. (054) in traditional sector and in India (wheat etc. unmilled (041), barely unmilled (043), tea and mate (074), spices (075), seeds for other fixed oils (223), cotton (263), clay refractory building products (662) and metal manufactures (698) from the traditional and pigments, paints (533) in the non-traditional sector. (Appendices-III.2.1 to III.2.9).

VI.2 Products Showing Discontinuity in Revealed Comparative Advantage

We may now discuss those commodities in which revealed comparative advantage was discontinued over different periods. Revealed comparative advantage confined in the first period on 21 products in Argentina, 14 in Brazil, 18 in Singapore, 13 in Israel, 15 in Korea Republic, 25 in Malaysia, 26 in Pakistan and 23 in Turkey within the traditional sector was discontinued during the second period. Such products within the non-traditional sector were 9 in Argentina, 7 in Brazil, 21 in Israel, 10 in Korea Republic, 13 in Malaysia, 6 in Pakistan, 18 in Singapore and 9 in Turkey.

VI.2 Products Showing Discontinuity in Revealed Comparative Advantage

Similarly, revealed comparative advantage second period relied on 25 traditional products in Argentina, 16 in Brazil, 24 in India, 22 in Israel, 20 in Korea Republic, 22 in Malaysia, 25 in Pakistan and Turkey and 22 in Singapore was discontinued during the final period. Such products within the non-traditional sector were 20 in Argentina, 9 in Brazil, 14 in India, 8 in Israel and 8 in Korea Republic and Singapore, 10 in Malaysia, 12 in Pakistan, and 15 in Turkey (Table-III.5).

VI.3 Addition of New Products with Revealed Comparative Advantage

During the second period, 16 products in Argentina and Brazil, 19 in Israel, 14 in Turkey, 3 in India, 15 in Korea Republic, 25 in Malaysia, 26 in Singapore and 21 in Pakistan entered as new products with revealed comparative advantage within the traditional sector. Corresponding products within the non-traditional sector were 14 in Argentina, 12 in Brazil, 16 in Israel, 8 in Korea Republic, 11 in Pakistan, 14 in Malaysia, 7 in Singapore and 15 in Turkey. Similarly, new products with revealed comparative advantage, entered during the final period within the traditional sector were: 25 in Argentina, 16 in Brazil, 22 in Malaysia Israel and Singapore, 24 in India, 20 in Korea Republic, 25 in Pakistan and Turkey. Similar products within the non-traditional sector were: 20 in Argentina, 9 in Brazil, 14 in India 12 in Pakistan, 8 in

Table-III.5 : Dynamic Revealed Comparative Advantage By Sectors and NICs Over Time

NICs	IInd Period				Final Period			
	Discontinuity in RCA on products during second over first period		Addition of new products with RCA during second over first period		Discontinuity in RCA on products during final over second period		Addition of new products with RCA during final over second period	
	T (No.)	NT (No.)	T (No.)	NT (No.)	T (No.)	NT (No.)	T (No.)	NT (No.)
Argentina	21	9	16	14	25	20	29	14
Brazil	14	7	16	12	16	9	18	7
India	2	-	3	-	24	14	19	21
Israel	13	-	19	16	22	8	10	20
Korea Republic	15	10	15	8	20	8	5	20
Malayasia	25	13	25	14	22	10	23	13
Pakistan	26	6	21	11	25	12	17	21
Singapore	18	18	26	7	22	8	12	18
Turkey	23	9	14	15	25	15	24	15
Average	17	8	17	11	22	12	17	17

T = Traditional Sector

NT = Non-Traditional Sector

Source: Commodity Trade Statistics, United Nations, Year Book of International Trade Statistics, United Nations and Monthly Statistics of Foreign Trade of India, DGCI & S, Calcutta, Various Issues.

Singapore, Israel and Korea Republic, 10 in Malaysia and 15 in Turkey, (Table III.5).

It would imply that during the second period, majority products in majority of NICs emerged in the traditional sector with revealed comparative advantage. During the final period, the equal number of products both in traditional and non traditional sector emerged as new products with revealed comparative advantage.

In all selected newly industrializing developing countries (NICs), 17 products from traditional and 8 from non-traditional sector, having revealed comparative advantage in the first period were discontinued in the second period. This was seen compensated by the entrance of new products in the traditional and 11 products in the non-traditional sector with revealed comparative advantage. During the final period, 22 products from traditional and 12 products from non-traditional sector were discontinued, whereas, equal number of products (17) were added in the traditional and the non-traditional sectors with revealed comparative advantage (Table-IV.5).

VII. Nature of Country's Competitiveness and Complementarities

Rank of export performance indices also ascribes the state of competitiveness and complementarities. If the absolute difference in ranks between two export-countries is

less than 20, they are considered as keen competitors. Further, if it is more than 20 but less than 40 they are considered as marginal competitors. However, if absolute difference is more than 40, they are denoted as complementary countries. Also if there exists only one either keen or marginal competitor, market is characterised as duopolistic. If the number of keen or marginal competitors exceeds to one but is less than four, the market is said to be oligopolistic. Finally, if the number of keen and marginal competitors are four or more, the market is described as perfectly competitive in character.³³ Table- III.6 classifies the selected NICs by nature of competitive markets according to rank of export performance indices of top 50 export-commodities.

VII.1 First Period : 1969-72 - 1974-76

During first period (1969-72 - 1974-76, it was found that a majority of products in traditional sector in Argentina, Brazil, Korea Republic, Malaysia, Pakistan, Singapore and Turkey faced the oligopolistic market competition, while in India and Israel the perfect competition prevailed. For instance, 16 out of 34, traditional goods in Argentina; 11 out of 33 in Brazil; 11 out of 32 in Korea Republic; 15 out of 35 in Malaysia; 19 out

Table-III.6: Classification of Products By Competitive Markets in Newly Industrializing Developing Countries

Nature of competitive market	Argentina			Brazil		
	1969-72 - 1974-76 (SITC NO.)	1974-76 - 1979-82 (SITC NO.)	1979-82 - 1984-87 (SITC NO.)	1969-72 - 1974-76 (SITC NO.)	1974-76 - 1979-82 (SITC NO.)	1979-82 - 1984-87 (SITC NO.)
A. Duopolistic market	081	013, 031, 032, 211 262, 283, 284, 421 521, 581, 599, 698 714, 734, 861, 891	014, 025, 038, 043 057, 081, 244, 335 411, 423, 511, 585 592, 611, 631, 674 941	013, 061, 072, 073 081, 265, 282, 422 582, 861, 863, 941	013, 284, 572, 675 717	011, 047, 071, 081 281, 423, 533, 631 642, 672, 689, 723, 842
Sub-Total	1	16	17	12	5	14
D. Oligopolistic market	022, 023, 040, 051 062, 073, 122, 211 262, 263, 276, 422 431, 512, 611, 694 695, 715, 723	011, 044, 051, 053 055, 242, 263, 332 422, 514, 532, 611 678, 681, 684, 686 719, 722, 723, 725 729, 897	011, 035, 042, 054 056, 058, 233, 267 513, 522, 523, 655 752, 784, 882	053, 099, 251, 284 532, 553, 611, 641 642, 656, 657, 667 672	011, 012, 025, 031 044, 053, 071, 073 081, 242, 276, 282 422, 521, 562, 582 611, 656, 712, 718 719, 723, 725, 726 735	072, 121, 513, 514 613, 657, 663, 664 683, 684, 699, 700 721, 725
Sub-Total	19	22	15	13	25	14
C. Perfectly competitive market	011, 031, 032, 054 055, 112, 121, 292 513, 531, 541, 554 613, 621, 655, 663 678, 712, 719, 722 725, 732, 821, 892 895	054, 551, 664, 685 711, 715, 718	022, 112, 261, 323 551, 572, 591, 612 613, 713, 742, 743	011, 055, 121, 262 273, 292, 313, 514 612, 613, 621, 652 653, 712, 715, 718 719, 733, 821, 831 841, 895	099, 513, 514, 642 672, 677, 713, 715 721, 821, 892	073, 261, 292, 513 551, 572, 612, 613 685, 716, 726
Sub-Total	25	7	12	22	11	11
D. Complementary countries	024, 041, 044, 045 532	221, 411, 512, 561, 613	034, 041, 044, 045 222, 251	071, 221, 286	243, 251, 265, 285 333, 423, 631, 716 731	099, 231, 243, 244 276, 422, 582, 719, 862, 863
Sub-Total	5	5	6	3	9	11
Grand-Total	50	50	50	50	50	50

Table-III.6 Contd.....

Nature of competitive market	India			Israel		
	1969-72 - 1974-76 (SITC NO.)	1974-76 - 1979-82 (SITC NO.)	1979-82 - 1984-87 (SITC NO.)	1969-72 - 1974-76 (SITC NO.)	1974-76 - 1979-82 (SITC NO.)	1979-82 - 1984-87 SITC NO.
A. Duopolistic market	041, 061, 071, 282 532, 654, 662, 673 677, 717, 896	034, 041, 122, 261 571, 611, 667, 676 724, 896	012, 014, 036, 041 043, 075, 273, 281 533, 585, 592, 621 642, 689, 718, 791 821, 842, 873, 896	025, 271, 551, 571 581, 667, 682	071, 512, 515, 516 521, 667, 693, 695 896	091, 512, 516, 621 682, 695, 714, 728 736, 884, 885, 897 898, 971
Sub-Total	11	10	20	7	9	14
B. Oligopolistic market	043, 051, 223, 263 283, 513, 514, 533 553, 571, 613, 671 672, 693, 695, 715 718, 733	023, 657, 043, 048 075, 081, 223, 263 291, 321, 431, 531 553, 650, 666, 671 692, 697, 812, 897	035, 056, 223, 263 287, 516, 611, 651 657, 727, 745, 847 911	023, 053, 062, 251 512, 513, 533, 553 684, 692, 695, 711 712, 714, 717, 892 896, 897	011, 024, 051, 122 222, 223, 263, 267 582, 621, 681, 684 686, 699, 714, 716 843, 894, 911	025, 058, 073, 098 267, 269, 278, 292 513, 514, 522, 523 598, 663, 679, 681 693, 716, 721, 741 759, 792, 872, 882 894
Sub-Total	18	20	13	18	19	25
C. Perfectly Competitive market	054, 075, 121, 273 276, 292, 554, 612 655, 661, 664, 687 693, 712, 725, 732 812, 841	022, 099, 533, 612 651, 662, 664, 699 716, 721, 812, 893	267, 323, 551, 612 662, 726	011, 051, 054, 055 112, 263, 276, 292 514, 554, 656, 663 678, 719, 723, 732 733, 734, 812, 895 931	054, 098, 112, 531 551, 642, 655, 657 662, 663, 682, 718 721, 821, 842, 872 893, 895	048, 541, 562, 641 685, 742, 848, 897
Sub-Total	18	12	6	21	18	8
D. Complementary countries	074, 681, 685	074, 121, 541, 652 654, 698, 843, 844	074, 279, 599, 652 658, 698, 783, 841 891, 895, 897	266, 561, 698, 961	268, 271, 292, 898	271, 667, 775
Sub-Total	3	8	11	4	4	3
Grand-Total	50	50	50	50	50	50

Table-III.6 Contd.....

Nature of competitive market	Korea Republic			Malaysia		
	1969-72 - 1974-76 (SITC NO.)	1974-76 - 1979-82 (SITC NO.)	1979-82 - 1984-87 (SITC NO.)	1969-72 - 1974-76 (SITC NO.)	1974-76 - 1979-82 (SITC NO.)	1979-82 - 1984-87 (SITC NO.)
A. Duopolistic market	632, 651, 654, 662 673, 674, 694, 831 891, 941	516, 625, 653, 666 672, 675, 678, 693 697, 698	244, 661, 677, 693 715, 771, 782, 793 874, 898, 951	025, 072, 231, 243 266, 285, 679, 687 734, 861, 862	022, 111, 264, 621	037, 046, 047, 0 288, 635, 773, 782, 874
Sub-Total	10	10	11	11	4	10
B. Oligopolistic market	031, 032, 099, 267 612, 641, 642, 653 672, 677, 697, 723 851, 864, 897	266, 267, 282, 514 562, 582, 641, 656 673, 674, 677, 681 686, 689, 694, 696 872, 894	071, 531, 582, 653 679, 681, 744, 752 761, 774, 784, 785 792, 812, 844, 845 846, 885, 896, 911	031, 062, 075, 251 265, 275, 284, 321 331, 422, 431, 553 581, 631, 675, 689 692, 714, 722, 812 851, 911	043, 046, 048, 051 098, 223, 267, 274 282, 431, 553, 554 572, 582, 633, 683 685, 692, 723, 872	025, 071, 098, 268, 274, 282, 553, 554, 598, 634, 671, 723, 761, 762, 793, 881, 911
Sub-Total	15	18	20	22	20	22
C. Perfectly competitive market	273, 621, 631, 655 661, 663, 664, 678 724, 821, 841, 892 899	098, 273, 442, 662 663, 682, 715, 716 812, 842, 899	612, 663, 685, 694	032, 048, 053, 054 112, 273, 283, 571 599, 652, 663, 664 691, 712, 719, 821	024, 071, 081, 099 111, 112, 273, 533 551, 642, 651, 653 663, 664, 676, 677 699, 716, 721, 892 893, 894, 895, 899	022, 323, 572, 612, 713
Sub-Total	13	11	4	16	24	6
D. Complementary countries	012, 111, 629, 666 679, 693, 696, 731 842, 893, 894, 951	034, 071, 268, 661 679, 691, 831, 851 941, 951, 961	625, 654, 656, 676 691, 697, 751, 764 776, 781, 786, 831 851, 861, 883	242	072, 091	232, 247, 248, 289, 333, 341, 431, 628, 726,
Sub-Total	12	11	15	1	2	12
Grant-Total	50	50	50	50	50	50

Table-III.6 Contd.....

Nature of competitive market	Pakistan			Singapore		
	1969-72 - 1974-76 (SITC NO.)	1974-76 - 1979-82 (SITC NO.)	1979-82 - 1984-87 (SITC NO.)	1969-72 - 1974-76 (SITC NO.)	1974-76 - 1979-82 (SITC NO.)	1979-82 - 1984-87 SITC NO.
A. Duopolistic market	024, 091, 212, 341 421, 676, 686	032, 042, 231, 241 332, 341, 571, 599 841, 861	023, 241, 268, 583 584, 611, 652, 659 686, 841	332, 551, 582, 686 862, 931	211, 231, 241, 264 341, 554, 911	023, 241, 288, 335 655, 687, 725, 736 773, 971
Sub-Total	7	10	10	6	7	10
B. Oligopolistic market	022, 023, 046, 099 122, 211, 243, 274 275, 281, 284, 331 411, 431, 611, 657 674, 675, 689, 734 831, 841, 864	012, 023, 025, 031 043, 045, 046, 055 222, 261, 273, 274 321, 431, 515, 629 633, 656, 657, 682 683, 685, 719, 722 726, 729, 735, 871 891	035, 042, 072, 223 233, 274, 291, 511 532, 583, 591, 613 634, 641, 651, 678 685, 713, 734, 745 759, 762, 777, 778 785, 791, 847, 872 881, 882, 896	021, 022, 044, 211 271, 274, 275, 284 331, 341, 411, 533 541, 641, 675, 676 689, 714, 718, 864	012, 023, 025, 044 046, 048, 073, 222 267, 431, 553, 633 683, 685, 687, 689 692, 718, 723, 726 821	012, 233, 274, 511 533, 541, 553, 554 572, 583, 584, 591 613, 634, 695, 697 716, 742, 743, 759 759
Sub-Total	23	29	31	20	21	21
C. Perfectly competitive market	048, 075, 112, 263 292, 512, 554, 621 631, 652, 656, 661 664, 678, 841, 895 899	022, 024, 099, 122 262, 291, 651, 664 684, 696, 899	022, 112, 323, 572 663, 726, 743	048, 075, 531, 554 599, 631, 664, 691 613, 697, 712, 715 719, 722, 724, 725 732, 734, 892, 895	071, 075, 098, 112 266, 274, 291, 513 533, 551, 642, 655 662, 665, 682, 699 721, 892, 893, 895	022, 048, 073, 111 323, 514, 641, 711 726, 882
Sub-Total	17	11	7	20	20	10
D. Complementary countries	042, 267, 321	--	246, 263	241, 285, 729, 735	111, 931	111, 122, 211, 212 334, 515, 729, 893 931
Sub-Total	3	--	2	4	2	9
Grand-Total	50	50	50	50	50	50

Table-III.6 contd..

Nature of competitive market	Turkey		
	1969-72 - 1974-76 (SITC NO.)	1974-76 - 1979-82 (SITC NO.)	1979-82 - 1984-87 (SITC NO.)
A. Duopolistic market	212, 291, 332, 521 651, 682	041, 054, 276, 421 651, 689, 732	024, 037, 046, 054 056, 058, 091, 278 291, 411, 659, 672 673, 682, 686, 774 846, 873, 931
Sub-Total	6	7	19
B. Oligopolistic market	011, 046, 072, 122 211, 262, 276, 283 613, 656, 657, 671 684, 692, 697, 851	045, 046, 048, 051 052, 053, 074, 075 242, 262, 263, 266 321, 422, 629, 651 655, 656, 657, 671 711, 712, 717, 719 722, 724, 725, 729	025, 121, 267, 269 513, 522, 523, 562 651, 658, 675, 678 692, 721, 724, 784 812, 845
Sub-Total	16	28	18
C. Perfectly competitive market	053, 054, 055, 112 121, 263, 273, 292 512, 541, 599, 641 642, 652, 661, 663 664, 672, 715, 718 732, 812, 841, 895 899	099, 112, 513, 514 532, 551, 642, 662 665, 718, 842, 892 893, 895	048, 551, 652, 674 742, 749, 843, 844 848
Sub-Total	25	14	9
D. Complementary countries	052, 261, 665	052	266, 322, 664, 665
Sub-Total	3	1	4
Grand-Total	50	50	50

Source: Commodity Trade Statistics United Nations, Year Book of International Trade Statistics, United Nations and Monthly Statistics of Foreign Trade of India, DGCI & S, Calcutta, Various Issues.

of 38 in Pakistan; 15 out of 26 in Singapore; and 15 out of 37 in Turkey faced the oligopolistic market competition. In India, 8 products out of 24 and in Israel 11 out of 24, faced the perfect competition in so far as selected NICs were concerned. As far as export-products from non-traditional sector were concerned, Argentina, Brazil, Korea Republic, Pakistan, Singapore and Turkey faced the perfect competition, while in India, Israel and Malaysia the oligopolistic competition existed. For instance, 12 non-traditional products out of 16 in Argentina; 11 out of 16 in Brazil; 5 out of 15 in Korea Republic; 5 out of 7 in Pakistan; 13 out of 23 in Singapore; and 10 out of 12 in Turkey faced the perfect competition, whereas, 9 out of 18 in India, 11 out of 24 in Israel; and 7 out of 15 in Malaysia encountered the oligopolistic market structure.

VII.2 Second Period : 1974-76 - 1979-82

During second period (1974-76 - 1979-82), a majority of products under traditional sector in Argentina, Brazil, India, Israel, Korea Republic, Pakistan, Singapore and Turkey faced the oligopolistic market structure, while only in Malaysia perfect competition prevailed. Within the traditional sector 14 products out of 24 in Argentina; 15 out of 27 in Brazil; 16 out of 29 in India; 13 out of 29 in Israel; 13 out of 34 in Korea Republic; 21 out of 34 in Pakistan; 16 out of 34 in Singapore; and 20 out of 31 in

Turkey were found facing oligopolistic competition. In Malaysia, 15 out of 33 traditional products faced the perfect competition. As far as goods in non-traditional sector were concerned, majority of products in (India, Israel, Korea Republic, Malaysia, Singapore and Turkey faced the perfect competition, whereas, that in Argentina, Brazil and Pakistan faced the oligopolistic market structure.

VII.3 Final Period : 1979-82 - 1984-87

During the final period (1979-82 to 1984-87), majority of products in traditional sector in Argentina, Brazil, India and Turkey faced the duopolistic market structure, while that in Israel, Malaysia, Pakistan and Singapore, the oligopolistic competition prevailed. In Korea Republic, however, majority of traditional commodities were found complementary in character. For example, 13 out of 34 traditional products in Argentina; 10 out of 29 in Brazil; 11 out of 27 in India; and 15 out of 30 in Turkey were seen facing duopolistic competition.

In Argentina, meat prepared preserved (014), cheese and curd (024), shell fish, fresh frozen (036), barely unmilled (043), fruits, nuts, fresh dried (057), feeding stuff for animals (081) under food and live animals (0.0); cork, natural, raw waste (244); under crude materials inedibles (2.0); residual petroleum products (335) under minerals (3.0); animal oils and fats (411), fixed vegetable oils and

soft (423) under animal vegetables (4.0); and leather (611), veneers, plywood (631) and iron and steel, universal plate, sheet (674) under manufactured goods classified by materials (6.0), were seen facing duopolistic market structure. Traditional products facing similar competition in Brazil were : meat fresh, chilled, frozen (011), other cereals meal flour (047), coffee and substitutes (071), feeding stuffs for animals (081), iron ore concentrates (281), fixed vegetable oils soft (423), veneers, plywood (631), paper etc. (642), iron ore, primary forms (672) and non-ferrous base metals (689).

In India, traditional products facing similar nature of market competition were: meat, dried, salted, smoked (012), meat prepared preserved, nes (014), shell fish, fresh frozen (036), wheat etc. unmilled (041), barely unmilled (043), spices (075), stone sand and gravel (273), iron ore concentrate (281), materials of rubber (621), paper etc. (642) and non ferrous base metals (689). Similarly, in Turkey such products were: cheese and curd (024), fish etc. prepared preserved nes (037), wheat etc. meal or flour (046), vegetables etc. fresh simply preserved (054), vegetable etc. (056), fruits, preserved, prepared (058), other crude minerals (278), crude animal materials nes (291), animal oils and fats (411), flour covering etc. (659), iron and steel primary forms (672), iron, steel, shapes etc. (673), copper (682) and zinc (686).

Among the traditional sector, products facing oligopolistic market structure in Israel were: eggs, birds, fresh (025), fruits, preserved (058), chocolate (073), edible products (098), other crude minerals (278), crude vegetable materials (292), mineral manufactures (663), iron and steel casting (679), silver platinum (681), wire products (693) etc; and that in Malaysia were: eggs (025), coffee and substitutes (071), edible products (098), seeds for other fixed oils (223), waste of textile fabrics (269), sulphur (274), iron and steel scrap (282), base metal ore concentrates (287), fur skins tanned dressed (613), veneers plywood (634) and pig iron (671). Similarly, such products in Pakistan were: fish etc.(035), rice (042), cocoa (072), seeds for other fixed oil (223), rubber synthetic (233), sulphur (274), crude animal (291), fur skins (613), veneers plywood (634), paper and paper board (641), textile yarn (651), iron and steel tube (678) and lead (685); and in Singapore meat dried (012), rubber synthetic reclaimed (233), sulphur (274), fur skins, tanned, dressed (613), veneers, plywood (634), tools (695) and base metals (697).

So far as the nature of market structure in non-traditional goods is concerned, majority of goods in Argentina, Brazil, Israel, Korea Republic, Malaysia, Pakistan, Singapore and Turkey faced the oligopolistic market structure, while that in India, duopoly market competition prevailed. Non-traditional Products facing duopolistic market competition in India were: pigments paints

(533), plastic materials (585), starch insulin etc. (592) within the chemicals (5.0); other power generating machinery (748), railway vehicles (791) within the machinery and transport equipment (7.0); and furniture etc. (821), men's outer wear not knit (842) and meters and counters nes (873) within the miscellaneous manufactured articles (8.0). The general findings, therefore, suggest that majority of products under traditional sector in majority of NICs, faced the oligopolistic competition during first and second periods, while perfect competition prevailed for the products under non-traditional sector. During the final period (1979-82 - 1984-87), there was a some what shift in nature of competition in few NICs. Whereas, majority of traditional goods in Israel, Malaysia, Pakistan and Singapore faced the oligopolistic market structure, in Argentina, Brazil, India and Turkey a fierce duopolistic market competition prevailed. A majority of traditional goods in Korea Republic was found complementary in so far as 9 NICs were concerned. As compared to above, majority of goods in non-traditional sector in majority of NICs were found facing oligopolistic market structure.

VIII. Nature of Factor Endowment Structure

We may now examine the relationship of revealed comparative advantage over time among each NICs in different import-markets. It would roughly indicate the state of

similarity/dissimilarity in resource endowment structure and the trade regime. Spearman's rank correlation has been worked out between rank of export performance indices of one NICs at 3 digit levels of SITC commodities with the rest in different import-markets. Statistically significant correlation coefficient below 0.5 or above would roughly indicate the higher degree of dissimilarity/similarity in each NICs internal factor endowment structure vis-a-vis the rest.

VIII.1 Developed Market Economies (DMEs)

During 1969-72 to 1974-76, in the developed import-markets (DMEs), Malaysia portrayed the dissimilar resource endowment vis-a-vis the rest; Argentina's with 5 NICs (Brazil, India, Israel, Malaysia and Korea Republic); India's with 4 NICs (Argentina, Malaysia, Singapore and Turkey); Israel's with 5 NICs (Argentina, Brazil, Korea Republic, Malaysia and Turkey); Korea Republic's with 5 NICs (Argentina, India, Israel, Malaysia and Turkey); Pakistan's with 2 NICs (Malaysia and Singapore); Singapore's with 2 NICs (Malaysia and Pakistan); and Turkey's with 5 NICs (Brazil, India, Israel, Korea Republic and Malaysia). Rank correlation coefficients being below 0.5 implied the dissimilarity in resource endowment structure between the export performance indices of each NICs vis-a-vis the rest in developed market economies. The factor endowment structure

in individual NICs with the rest was found to be similar in developed market countries (Table-III.7).

During second period (1974-76 - 1979-82), factor endowment was found to be dissimilar between Argentina and India; Brazil's with Singapore; India's with Argentina; Israel's with Singapore; Malaysia's with Turkey and Pakistan; Pakistan's with Turkey and Malaysia; and Singapore's with Israel and Brazil (table-III.8). Similarly, resource endowment during final period (1979-82 - 1984-87) in Argentina was found dissimilar (table III.9) with 4 NICs (India, Pakistan and Turkey); Brazil's with 3 NICs (Brazil, India, Israel and Turkey); India with 6 NICs (Argentina, Brazil, Israel, Singapore, Korea Republic and Turkey); Israel's with 6 NICs (India, Korea Republic, Malaysia, Pakistan, Singapore and Turkey); Korea Republic's with 4 NICs (India, Israel, Malaysia and Singapore); Malaysia's with 3 NICs (Israel, Korea Republic and Singapore); Singapore's with 5 NICs (Brazil, India, Israel, Korea Republic and Malaysia); and Turkey's with 4 NICs (Argentina, Brazil, India and Israel). Factor endowment structure in individual NICs with the rest was found to be similar in character in developed market economies during second as well as in the third period. Thus, revealed comparative advantage as guided by resource endowment and trade policies, has been found to be generally dissimilar among the NICs during first and the third periods, whereas, similar in the second period into the developed market economies (DMEs).

Table-III.7 : Spearman's Rank Correlation Coefficients Between Rank of Export Performance Indices of Individual NICs and Remaining NICs in the Developed Market Economies : 1969-72 -1974-76

NICs	NICs								
	Argentina	Brazil	India	Israel	Korea Republic	Malaysia	Pakistan	Singapore	Turkey
Argentina	1.0000	0.2413**	0.2347**	0.3629*	0.2977*	0.2957*	0.0108	-0.1176	0.6362*
Brazil	0.2413**	1.0000	0.1403	0.2134**	0.0845	0.1885***	0.0063	-0.0431	0.2478*
India	0.2347**	0.1403	1.0000	0.5612	0.15036	0.3943	0.0943	0.1689	0.4383*
Israel	0.3629*	0.2134**	0.5612*	1.0000	0.4885*	0.4667	0.0701	0.0894	0.4190*
Korea Republic	0.2977*	0.0845	0.5036*	0.4885*	1.0000	0.3801	0.0345	0.1179	0.4354*
Malaysia	0.2951*	0.1885***	0.3993*	0.4667*	0.3801*	1.0000	0.1874***	0.2457**	0.3601*
Pakistan	0.0108	0.0063	0.0943	0.0701	0.0345	0.1874***	1.0000	0.2929*	0.0872
Singapore	-0.1176	-0.0431	0.1689**	0.0894	0.1179	0.2457**	0.2929*	1.0000	0.0115
Turkey	0.6362*	0.2478**	0.4383*	0.4190*	0.4354**	0.3601*	0.0872	0.0115	1.0000

Note : * Indicates significant at 1 per cent level.

** Indicates significant at 5 per cent level.

*** Indicates significant at 10 per cent level.

Source : Commodity Trade Statistics, United Nations, Year Book of International Trade Statistics, United Nations and Monthly Statistics of Foreign Trade of India, DGCI & S, Calcutta, Various Issues.

Table-III.8 : Spearman's Rank Correlation Coefficients Between Rank of Export Performance Indices of Individual NICs and Remaining NICs in the Developed Market Economies : 1974-76 - 1979-82

NICs	NICs								
	Argen- tina	Brazil	India	Israel	Korea Republic	Malaysia	Paki- stan	Singa- pore	Turkey
Argentina	1.0000	-0.0155	0.4400*	0.0451	-0.0639	-0.0465	0.0293	0.0682	0.0322
Brazil	-0.0155	1.0000	-0.0793	0.1338	0.0883	0.0992	0.0435	0.2063**	-0.1041
India	0.4400*	-0.0793	1.0000	0.1218	0.0107	0.0081	0.0280	0.1140	0.1118
Israel	0.0451	0.1338	0.1218	1.0000	0.0819	0.0783	-0.0026	0.2648*	-0.0493
Korea Republic	0.0639	0.0883	0.0107	0.0819	1.0000	0.0820	0.0785	0.0722	-0.0746
Malaysia	0.0465	0.0992	0.0081	0.0783	0.0820	1.0000	0.3224*	0.1338	0.1903***
Pakistan	0.0293	0.0435	0.0280	-0.0026	0.0785	0.3224*	1.0000	0.0781	0.2642*
Singapore	0.0682	0.2063**	0.1140	0.2648*	0.0722	0.1338	0.0781	1.0000	-0.0224
Turkey	0.0322	-0.1041	0.1118	-0.0493	-0.0746	0.1903***	0.2642*	-0.0224	1.0000

Note : * Indicates significant at 1 per cent level.

** Indicates significant at 5 per cent level

*** Indicates significant at 10 per cent level.

Source : Commodity Trade Statistics, United Nations, Year Book of International Trade Statistics, United Nations and Monthly Statistics of Foreign Trade of India, DGCI & S, Calcutta, Various Issues.

Table-III.9 : Spearman's Rank Correlation Coefficients Between Rank of Export Performance
Indices of Individual NICs and Remaining ICs in the Developed Market Economies :
1979-82 - 1984-87

NICs	NICs								
	Argen- tina	Brazil	India	Israel	Korea Republic	Malaysia	Paki- stan	Singa- pore	Turkey
Argentina	1.0000	0.1657***	0.3197*	-0.0139	-0.0727	-0.0818	0.1707***	0.0012	0.4684*
Brazil	0.1657***	1.0000	0.2087**	0.2275**	0.1389	0.1366	-0.0108	0.1602	0.1793***
India	0.3197*	0.2087**	1.0000	0.3286*	0.2736*	0.1204	0.1255	0.2120**	0.4400*
Israel	-0.0139	0.2275**	0.3286*	1.0000	0.3958*	0.3054*	-0.1704***	0.3810*	0.1836***
Korea Republic	-0.0727	0.1389	0.2736*	0.3958*	1.0000	0.2263**	-0.0767	0.3862*	0.1505
Malaysia	-0.0818	0.1366	0.1204	0.3054*	0.2263**	1.0000	-0.0238	0.3677*	0.0263
Pakistan	0.1707***	-0.0108	0.1255	-0.1704***	-0.0767	-0.0238	1.0000	-0.0136	0.0808
Singapore	0.0012	0.1602	0.2120**	0.3810*	0.3862*	0.3677*	-0.0136	1.0000	0.1429
Turkey	0.4684*	0.1793***	0.4400*	0.1836***	0.1505	0.0263	0.0808	0.1429	1.0000

Note : * Indicates significant at 1 per cent level.
 ** Indicates significant at 5 per cent level
 *** Indicates significant at 10 per cent level.

Source : Commodity Trade Statistics, United Nations, Year Book of International Trade Statistics,
United Nations and Monthly Statistics of Foreign Trade of India, DGCI & S, Calcutta,
Various Issues.

VIII.2 Developing Countries (DCs)

We may now discuss the nature of factor endowment structure for individual NICs vis-a-vis the rest in developing countries. During 1969-72 - 1974-76, factor endowment structure (table-III.10) in Argentina was found to be dissimilar with 4 NICs (Brazil, Israel, Pakistan and Turkey); Brazil's with 2 NICs (Argentina and Pakistan); India's with 5 NICs (Argentina, Israel, Korea Republic, Malaysia and Singapore); Israel's with 3 NICs (India, Korea Republic and Malaysia); Korea Republic's with 2 NICs (India and Israel); Malaysia's with 3 NICs (India, Israel and Singapore); Pakistan's only with Brazil; and Singapore's with 3 NICs (Argentina, India and Malaysia). Resources endowment structure (table-III.11 in the second period (1974-76 - 1979-82) was found to be dissimilar in Brazil with 2 NICs (India and Korea Republic); India's with 6 NICs (Brazil, Israel, Korea Republic, Malaysia, Singapore and Turkey); Israel's with 3 NICs (India, Malaysia and Singapore); Korea Republic with 3 NICs (Brazil, India and Malaysia); Malaysia's with 5 NICs (India, Israel, Korea Republic, Singapore and Turkey); Singapore's with 3 NICs (India, Israel and Malaysia); and Turkey's with 2 NICs (India and Malaysia). During the final period (1974-82 - 1984-87), resource endowment structure (table III.12) in Argentina was found to be dissimilar with 2 NICs (India and Singapore); Brazil's with 2 NICs (Korea Republic and Pakistan); India's with 3 NICs (Argentina,

Table-III.10: Spearman's Rank Correlation Coefficients Between Rank of Export Performance Indices of Individual NICs and Rest of NICs in Development Countries :
1969-72 and 1974-76

NICs	NICs								
	Argen- tina	Brazil	India	Israel	Korea Republic	Malaysia	Paki- stan	Singa- pore	Turkey
Argentina	1.0000	0.2144**	0.1865***	0.0918	-0.0491	0.1604	0.3538*	0.1921**	0.0739
Brazil	0.2144**	1.0000	0.0405	0.1453	0.0892	0.0568	0.4578*	-0.0208	0.0635
India	0.1865***	0.0405	1.0000	0.1768***	0.1666***	0.3750*	0.0551	0.2681*	0.0818
Israel	0.0918	0.1453	0.1768***	1.0000	0.3110*	0.2238**	0.0824	0.1619	0.0011
Korea Republic	-0.0491	0.0892	0.1666***	0.3110*	1.0000	0.1042	0.0862	0.0992	-0.0110
Malaysia	0.1604	0.0568	0.3750*	0.2238**	0.1042	1.0000	0.0853	0.3442*	0.0340
Pakistan	0.3538*	0.4578*	0.0551	0.0824	0.0862	0.0853	1.0000	-0.0105	-0.0116
Singapore	0.1921***	-0.0208	0.2681*	0.1619	0.0992	0.3442*	-0.0105	1.0000	0.1542
Turkey	0.0739	0.0635	0.0818	0.0011	-0.0110	0.0340	-0.0116	0.1542	1.0000

Note : * Indicates significant at 1 per cent level.
 ** Indicates significant at 5 per cent level
 *** Indicates significant at 10 per cent level.

Source : Commodity Trade Statistics, United Nations, Year Book of International Trade Statistics, United Nations and Monthly Statistics of Foreign Trade of India, DGCI & S, Calcutta, Various Issues.

Table-III.11: Spearman's Rank Correlation Coefficients Between Rank of Export Performance Indices of Individual NICs and Rest of NICs in Development Countries :
1974-76 and 1979-82

NICs	NICs								
	Argen- tina	Brazil	India	Israel	Korea Republic	Malaysia	Paki- stan	Singa- pore	Turkey
Argentina	1.0000	0.1533	-0.0366	0.0195	-0.0478	-0.0765	0.0922	-0.0180	-0.1001
Brazil	0.1533	1.0000	0.2971*	0.0763	0.1747***	0.0958	-0.0068	-0.0581	0.2231**
India	-0.0366	0.2971*	1.0000	0.1633***	0.3178*	0.4627*	0.0703	0.2400**	0.3209*
Israel	0.0195	0.0763	0.1633***	1.0000	-0.0936	0.1761***	0.0873	0.1851***	-0.0927
Korea Republic	-0.0478	0.1747***	0.3178*	-0.0936	1.0000	0.2299**	0.0284	0.0740	0.6909*
Malaysia	-0.0765	0.09158	0.4627*	0.1761***	0.2299**	1.0000	0.0648	0.3244*	0.2761*
Pakistan	0.0922	-0.0068	0.0703	0.0873	0.0284	0.0648	1.0000	-0.0409	-0.0554
Singapore	-0.0180	-0.0581	0.2400**	0.1851***	0.0740	0.3244*	-0.0409	1.0000	0.0751
Turkey	-0.1001	0.2231**	0.3209*	-0.0927	0.6909*	0.2761*	-0.0554	0.0751	1.0000

Note : * Indicates significant at 1 per cent level.
 ** Indicates significant at 5 per cent level
 *** Indicates significant at 10 per cent level.

Source : Commodity Trade Statistics, United Nations, Year Book of International Trade Statistics, United Nations and Monthly Statistics of Foreign Trade of India, DGCI & S, Calcutta, Various Issues.

Malaysia and Singapore); Korea Republic's with 3 NICs (Brazil, Pakistan and Singapore; Malaysia's with 2 NICs India and Singapore); Pakistan's only with Korea Republic; and Singapore's with 4 NICs (Argentina, India, Korea Republic and Malaysia). Factor endowment structure in each NICs with the rest of NICs was found to be identical during all the periods in developing market economies.

It is interesting finding that resource structure of 4 NICs (Brazil, Korea Republic, Pakistan and Turkey) during first period, 4 NICs (Pakistan, Brazil, Turkey and Argentina) during second period and 6 NICs (Israel, Argentina, Brazil, Malaysia, Pakistan and Turkey) during the final period was generally found to be identical vis-a-vis the most of NICs under consideration. Resource endowment structure and trade policies in individual NICs vis-a-vis the rest were generally found to be dissimilar in character. It is significant to note that resource endowment dissimilarity was pronounced more significantly in developed than that in developing economies.

VIII.3 World

Nature of factor endowment structure and the role of trade regime has also been examined in the world import market. During (1969-72 - 1974-76), resource endowment structure (table-III.13) in Argentina was found dissimilar

Table-III.12: Spearman's Rank Correlation Coefficients Between Rank of Export Performance Indices of Individual NICs and Rest of NICs in Development Countries :
1979-82 and 1984-87

NICs	NICs								
	Argen- tina	Brazil	India	Israel	Korea Republic	Malaysia	Paki- stan	Singa- pore	Turkey
Argentina	1.0000	0.0069	0.1859***-0.0244		0.0521	-0.1210	0.0871	0.2789*	-0.0960
Brazil	0.0069	1.0000	0.0264	0.0303	0.22118**0.0105		0.1824***0.0531		0.1496
India	0.1859***	0.0264	1.0000	-0.0817	0.1180	-0.4439*	0.0762	0.2920*	0.0119
Israel	-0.0244	0.0303	-0.0817	1.0000	0.1182	-0.0696	0.0548	0.0235	-0.0402
Korea Republic	0.0521	0.2118**	0.1180	0.1182	1.0000	-0.1300	0.4080*	0.2482**	0.0555
Malaysia	-0.1210	0.0105	-0.4439*	-0.0696	-0.1300	1.0000	-0.0475	-0.2991*	-0.0195
Pakistan	0.0871	0.1824***	0.0762	0.0548	0.4080*	-0.0475	1.0000	0.1203	0.1024
Singapore	0.2789*	0.0531	0.2920*	0.0235	0.2482**	-0.2991*	0.1203	1.0000	0.1058
Turkey	-0.0960	0.1496	0.0119	-0.0402	0.0555	-0.0195	0.1024	0.1058	1.0000

Note : * Indicates significant at 1 per cent level.
 ** Indicates significant at 5 per cent level
 *** Indicates significant at 10 per cent level.

Source : Commodity Trade Statistics, United Nations, Year Book of International Trade Statistics, United Nations and Monthly Statistics of Foreign Trade of India, DGCI & S, Calcutta, Various Issues.

vis-a-vis the rest of NICs; Brazil's with 6 NICs (Argentina, Korea Republic, Malaysia, Pakistan, Singapore and Turkey); India's with Argentina; Israel's with 6 NICs (Argentina, Brazil, Korea Republic, Malaysia, Singapore and Turkey); Korea Republic's with 7 NICs (Argentina, Brazil, Israel, Malaysia, Pakistan, Singapore and Turkey); Malaysia's with 7 NICs (Argentina, Brazil, Israel, Korea Republic, Pakistan, Singapore and Turkey); Pakistan's with 7 NICs (Argentina, Brazil, Israel, Korea Republic, Malaysia, Singapore and Turkey); Singapore's with 7 NICs (Argentina, Brazil, Israel, Korea Republic, Malaysia, Pakistan and Turkey); and Turkey's with 7 NICs (Argentina, Brazil, Israel, Korea Republic, Malaysia, Pakistan and Singapore).

More or less, a similar pattern has also been revealed in the second and the third period. For instance, during 1974-76 - 1979-82, Pakistan portrayed the dissimilarity in resource structure vis-a-vis the rest of NICs, while Brazil, India, Israel, Korea Republic, Malaysia, Singapore and Turkey vis-a-vis the 7 out of 9 NICs. However, Argentina was the only NIC out of 9, which portrayed the dissimilarity in resource structure with Pakistan only (table-III.14). Similarly, during the final period (1979-82 - 1984-87), all NICs except Argentina underlined the dissimilarity in resource endowment vis-a-vis the 7 NICs in to the world

Table-III.13: Spearman's Rank Correlation Coefficients Between Rank of Export Performance Indices of Individual NICs and Rest of NICs in the World : 1969-72 - 1974-76

NICs	NICs								
	Argentina	Brazil	India	Israel	Korea Republic	Malaysia	Pakistan	Singapore	Turkey
Argentina	1.0000	0.4337*	0.1834**	0.3599*	0.3568*	0.3979*	0.4225*	0.4422*	0.4041*
Brazil	0.4337*	1.0000	0.1211	0.4464*	0.3706*	0.3750*	0.4123*	0.4392*	0.4829*
India	0.1834***	0.1211	1.0000	0.1315	-0.0348	0.1177	0.1616	0.1098	0.1185
Israel	0.03599*	0.4464*	0.1315	1.0000	0.3963*	0.3609*	0.3815*	0.3825*	0.3882*
Korea Republic	0.3568*	0.3706*	-0.0348	0.3963*	1.0000	0.3382*	0.3011*	0.3229*	0.4437*
Malaysia	0.3979*	0.3750*	0.1177	0.3609*	0.3382*	1.0000	0.3345*	0.3476	0.3746*
Pakistan	0.4225*	0.4123*	0.1616	0.3815*	0.3011*	0.3345*	1.0000	0.4335**	0.4251*
Singapore	0.4422*	0.4392*	0.1098	0.3825*	0.3229*	0.3476*	0.4335*	1.0000	0.3827*
Turkey	0.4041*	0.4829*	0.1185	0.3882*	0.4437*	0.3746*	0.4251*	0.3827*	1.0000

Note : * Indicates significant at 1 per cent level.
 ** Indicates significant at 5 per cent level
 *** Indicates significant at 10 per cent level.

Source : Commodity Trade Statistics, United Nations, Year Book of International Trade Statistics, United Nations and Monthly Statistics of Foreign Trade of India, DGCI & S, Calcutta, Various Issues.

Table-II.14: Spearman's Rank Correlation Coefficients Between Rank of Export Performance Indices of Individual NICs and Rest of NICs in the World : 1974-76 - 1979-82

NICs	NICs								
	Argen- tina	Brazil	India	Israel	Korea Republic	Malaysia	Paki- stan	Singa- pore	Turkey
Argentina	1.0000	0.1501	0.1569	0.1337	0.0858	0.1580	0.1999**	0.1259	0.1372
Brazil	0.1501	1.0000	0.2320**	0.2591*	0.2338**	0.2259**	0.2546*	0.3113*	0.2788*
India	0.1569	0.2320**	1.0000	0.3177*	0.2727*	0.2551*	0.2673*	0.3496*	0.3386*
Israel	0.1337	0.2591*	0.3177*	1.0000	0.3658*	0.3422*	0.1968**	0.2376**	0.3342*
Korea Republic	0.0858	0.2338**	0.2727*	0.3658*	1.0000	0.2766*	0.1826**	0.3035	0.2613*
Malaysia	0.1580	0.2259**	0.2551*	0.3422*	0.2766*	1.0000	0.4061*	0.2340**	0.3479*
Pakistan	0.1999**	0.2546*	0.2673*	0.1968**	0.1826**	0.4061*	1.0000	0.2063**	0.3249*
Singapore	0.1259	0.3113*	0.3496*	0.2376**	0.3035*	0.2340**	0.2063**	1.0000	0.1867***
Turkey	0.1372	0.2788*	0.3386*	0.3342*	0.2613*	0.3479*	0.3249*	0.1867***	1.0000

Note : * Indicates significant at 1 per cent level.
 ** Indicates significant at 5 per cent level
 *** Indicates significant at 10 per cent level.

Source : Commodity Trade Statistics, United Nations, Year Book of International Trade Statistics, United Nations and Monthly Statistics of Foreign Trade of India, DGCI & S, Calcutta, Various Issues.

Table-III.15: Spearman's Rank Correlation Coefficients Between Rank of Export Performance Indices of Individual NICs and Rest of NICs in the World : 1979-82 - 1984-87

NICs	NICs								
	Argen- tina	Brazil	India	Israel	Korea Republic	Malaysia	Paki- stan	Singa- pore	Turkey
Argentina	1.0000	0.0625	0.1481	0.1288	0.0364	0.1403	0.1057	0.1027	0.0805
Brazil	0.0625	1.0000	0.2077**	0.3138*	0.3218*	0.2834*	0.2228**	0.2474**	0.2937*
India	0.1481	0.2077**	1.0000	0.3506*	0.3346*	0.2833*	0.2833*	0.2933*	0.2582*
Israel	0.1288	0.3138*	0.3506*	1.0000	0.4060*	0.3492*	0.2853*	0.3415*	0.2839*
Korea Republic	0.0364	0.3218*	0.3346*	0.4060*	1.0000	0.3457*	0.2482**	0.2904*	0.3185*
Malaysia	0.1403	0.2834*	0.2833*	0.3492*	0.3457*	1.0000	0.3151*	0.3989*	0.2894*
Pakistan	0.1057	0.2228**	0.2833*	0.2853*	0.2482*	0.3151*	1.0000	0.3706*	0.2413**
Singapore	0.1027	0.2474**	0.2933*	0.3415*	0.2904*	0.3989*	0.3706*	1.0000	0.3201*
Turkey	0.0805	0.2937*	0.2582*	0.2839*	0.3185*	0.2894*	0.2413**	0.3201*	1.0000

Note : * Indicates significant at 1 per cent level.
 ** Indicates significant at 5 per cent level
 *** Indicates significant at 10 per cent level.

Source : Commodity Trade Statistics, United Nations, Year Book of International Trade Statistics, United Nations and Monthly Statistics of Foreign Trade of India, DGCI & S, Calcutta, Various Issues.

market (table-III.15). It appears that all NICs, excluding India during the first period and Argentina during second and the third period, portrayed the dissimilarity in their factor endowment structure vis-a-vis the most of NICs in so far as world as import market is concerned).

General findings thus suggest that there have been a general resource structure dissimilarity among NICs for the goods exported to developed countries (DMEs) and the world, which implied the non-homogeneous production structure in most of NICs. In sharp contrast to this, a relatively homogeneous factor endowment structure was observed for the products exported to the developing countries (DCs).

IX. Correspondance Between Export-Supply and Import-Demand Structure

We may now examine the export-supply and the import-demand structure among NICs. This is done with the help of ratio of commodity correspondance, which has been worked out by using following Linemann's method³⁴:

$$C_{pq} = \sqrt{\frac{1}{n} \sum_{i=1}^n \frac{P_i}{C_i} \frac{q_i}{m_i}}$$

Where, C_{pq} = Coefficient of correspondance between export of p and imports of q country.

C_i^p = Proportion of ith commodity in the exports of country p.

m_i^q = Proportion of ith commodity in the import of country q.

By using above method, commodity correspondance ratios have been worked out, which are recorded in table-III.16, III.17 and III.18 for the year 1970, 1980 and 1987. In 1970, export-supply of Argentina matched well with import-demand structure of Brazil, Israel, India, Turkey and Pakistan in order of importance. Similarly, export-supply of Brazil corresponded well with import-demand structure of Argentina, India, Israel, Pakistan and Turkey; India's with Brazil, Pakistan, Israel, Argentina and Malaysia; Israel's with Brazil, Pakistan, India and Korea Republic; Korea Republic's with Pakistan, Israel, India, Malaysia and Turkey; and that of Malaysia's with Pakistan, India, Brazil, Turkey and Israel. A similar was also the case for export-supply of Pakistan, which matched well with import-demand structure of Malaysia, Brazil, Argentina, India and Turkey; Singapore's with Malaysia, Pakistan, Brazil, India and Turkey; and that of Turkey's with Argentina, Brazil, Malaysia, Pakistan and India (Table-III.16).

In 1980, export-supply of Argentina matched well with import-demand structure of Brazil, Turkey, India, Pakistan and Israel in order of importance; Brazil's with Argentina,

Table-III.16: Coefficients of Commodity Correspondence Between Export-Supplies and Import-Demand Structure in Selected Newly Industrializing Developing Countries: 1970

Exporting countries	Importing Countries								
	Argentina	Brazil	India	Israel	Korea Republic	Malaysia	Pakistan	Singapore	Turkey
Argentina	—	0.2133	0.1456	0.1587	0.0905	0.1068	0.1281	0.0943	0.1407
Brazil	0.2261	—	0.1533	0.1517	0.0894	0.1418	0.1449	0.0959	0.1421
India	0.1637	0.2005	—	0.1691	0.1281	0.1459	0.1786	0.1034	0.1378
Israel	0.1480	0.2369	0.1703	—	0.1414	0.1277	0.1758	0.1054	0.1315
Korea Republic	0.1049	0.1122	0.1400	0.1428	—	0.1229	0.1493	0.1179	0.1221
Malaysia	0.1054	0.1382	0.1609	0.1233	0.1010	—	0.1752	0.1145	0.1292
Pakistan	0.1095	0.1229	0.1072	0.0900	0.0656	0.1414	—	0.0889	0.0959
Singapore	0.1311	0.1679	0.1640	0.1175	0.1114	0.2381	0.1792	—	0.1503
Turkey	0.1786	0.1780	0.1493	0.1296	0.0866	0.1679	0.1503	0.0970	—

Source: Commodity Trade Statistics, United Nations, Year Book of International Trade Statistics, United Nations and Monthly Statistics of Foreign Trade of India, DGCI & S, Calcutta, Various Issues.

Table-III.17: Coefficients of Commodity Correspondance Between Export-Supplies and Import-Demand Structure in Selected Newly Industrializing Developing Countries: 1980

Exporting countries	Importing Countries								
	Argentina	Brazil	India	Israel	Korea Republic	Malaysia	Pakistan	Singapore	Turkey
Argentina	—	0.1706	0.1345	0.1285	0.0954	0.1044	0.1308	0.0906	0.1375
Brazil	0.1523	—	0.1269	0.1269	0.1100	0.1162	0.1257	0.1082	0.1245
India	0.1453	0.1453	—	0.1562	0.1396	0.0985	0.1685	0.0831	0.1338
Israel	0.1192	0.1241	0.1400	—	0.1425	0.1015	0.1606	0.0990	0.1170
Korea Republic	0.0995	0.1091	0.1400	0.1536	—	0.1010	0.1572	0.1105	0.1145
Malaysia	0.1109	0.1158	0.1179	0.1000	0.0889	—	0.1140	0.1490	0.1145
Pakistan	0.1517	0.1487	0.1584	0.1622	0.1375	0.0985	—	0.0949	0.1407
Singapore	0.1058	0.1100	0.1118	0.1063	0.1100	0.1364	0.1058	—	0.1049
Turkey	0.1572	0.1539	0.1342	0.1311	0.1049	0.0985	0.1414	0.0640	—

Source: Commodity Trade Statistics, United Nations, Year Book of International Trade Statistics, United Nations and Monthly Statistics of Foreign Trade of India, DGCI & S, Calcutta, Various Issues.

India, Israel, Pakistan and Turkey; India's with Pakistan, Israel, Brazil, Argentina and Korea Republic; and Israel's with Pakistan, Korea Republic, India, Brazil and Argentina. Similarly, export-supply of Korea Republic matched well with import-demand structure of Pakistan, Israel, India, Turkey and Singapore; Malaysia's with Singapore, India, Brazil, Turkey and Pakistan; Pakistan's with Israel, India, Argentina, Brazil, and Turkey; Singapore's with Malaysia, India, Korea Republic, Brazil, and Israel; and that of Turkey's with Argentina, Brazil, Pakistan, India and Israel (table-III.17).

In 1987, export-supply of Argentina corresponded well with import-demand structure of Brazil, India, Israel, Pakistan and Turkey; Brazil's with Argentina, Israel, India, Pakistan and Korea Republic; India's with Pakistan, Israel, Argentina, Brazil and Turkey; Israel's with Pakistan, India, Korea Republic, Brazil and Argentina; and Korea's with Singapore, Israel, Pakistan, India and Turkey. Similarly, export-supply of Malaysia matched well with import-demand structure of Korea Republic, Brazil, Pakistan, and India; Pakistan's with India, Israel, Argentina, Turkey, and Brazil; Singapore's with Korea Republic, Malaysia, Brazil, Israel and Turkey; and that of Turkey's with Brazil, Pakistan, India, Israel and Argentina (Table-III.18). Thus, there exists a general correspondance between the supply of export and the demand for import among the selected NICs.

Table-III.18: Coefficients of Commodity Correspondance Between Export supplies and Import-Demand Structure in Selected Newly Industrializing Developing Countries: 1987:

Exporting Countries	Importing Countries									
	Argen- tina	Brazil	India	Israel	Korea Repub- lic	Mal- aysia	Paki- stan	Singa- pore	Tur- key	
Argentina	--	0.1594	0.1285	0.1241	0.0959	0.1039	0.1225	0.0860	0.1162	
Brazil	0.1493	--	0.1308	0.1319	0.1179	0.1105	0.1285	0.1158	0.1179	
India	0.1497	0.1404	--	0.1594	0.1342	0.0980	0.1628	0.0960	0.1404	
Israel	0.1288	0.1323	0.1503	--	0.1439	0.1025	0.1517	0.1265	0.1257	
Korea Republic	0.1034	0.1261	0.1411	0.1523	--	0.1118	0.1435	0.1549	0.1364	
Malaysia	0.0990	0.1166	0.1034	0.1030	0.1179	--	0.1049	0.1483	0.1020	
Pakistan	0.1480	0.1411	0.1700	0.1670	0.1277	0.1015	--	0.0762	0.1425	
Singapore	0.0911	0.1149	0.0970	0.1122	0.1414	0.1300	0.0872	--	0.0995	
Turkey	0.1490	0.1597	0.1523	0.1503	0.1330	0.0938	0.1543	0.0927	--	

Source: Commodity Trade Statistics, United Nations, Year Book of International Trade Statistics, United Nations and Monthly Statistics of Foreign Trade of India, DGCI & S, Calcutta, Various Issues.

X. Formation of Trade Cooperation : Some Possible Considerations

Above measures can be applied for consideration of trade cooperation.³⁵ It may be mentioned that commodities showing revealed comparative advantage in a static framework have generally been considered for trade cooperative move, which, of course, do not take into account of changing pattern of comparative advantage i.e., dynamic comparative advantage product-wise. Since a change in comparative advantage of commodities is intrinsically linked with change in their factor endowment structure, it would be more realistic if trade cooperation is considered on dynamic than on traditionally employed static comparative advantage basis. In this study, the consideration of trade cooperation is, therefore, based on dynamic rather than on the static comparative advantage. In association with this, nature of competition, changes in factor endowment structure and commodity correspondence coefficients have also been taken into account.

The formation of trade cooperation is justifiable on the ground that most of NICs in their traditional and non-traditional commodities faced the fierce competition and thus efforts towards this direction, could possibly minimise, if not eliminate, the element of competition. Since most of NICs faced the oligopolistic market competition under kinked demand curve for marketing of their traditional and perfect

competition for their non-traditional commodities would only imply that individual NICs is nearly a price-taker and, therefore, none of them is able to influence the given ruling price determined by the major industrialized countries. Hence, any efforts by any NICs would only result in to the cut-throat competition including price-war among themselves. This could be avoided by forming the intra-NICs trade blocks through cost reducing and price decisive measures.

Based on above considerations, selected 9 NICs have been classified into three distinct blocks, such as, (I) Singapore, India, Argentina, Pakistan and Turkey, (II) Korea Republic and Israel and (III) Brazil and Malayasia. First block may specialise commodities with in food and live animals (0.0), beverages and tobacco (1.0) and crude materials inedibles except fuels (2.0). and may export to the rest of the blocks. Similarly, second block may specialize various commodities within manufactured goods classified by materials (6.0) and miscellaneous manufactured articles (8.0) and may export to rest of the blocks. Third block reciprocately may specialize various commodities with in animal vegetable oils and fats (4.0), chemicals (5.0) and machinery and transport equipment (7.0) may export to rest of the blocks.

The formation of intra-NICs trade on the basis of general findings of the study has been presented in table-III.19 at 3 digit levels of SITC groupings. Such an attempt

Table-III.19 : Classification of Export-Commodities into Blocks of Selected Newly Industrializing Developing Countries Based on Dynamic Revealed Comparative Advantage

Block	Export-Commodities
I	
India, Singapore, Argentina, Pakistan, Turkey	Meat, fesh, chilled, frozen (011); . Wheat etc. unmilled (041); Barley unmilled (043); Maize unmilled (044); Wheat etc. meal or flour (046); Cereal etc. preparations (048); Vegetable etc. fresh simply preserved (054); Tea and mate (074); Spices (075); Hides, skins, etc. furs raw (211); Seeds for other fixed oils (223); Fuelwood and charcoal (241); Cotton (263) and Sulphur, unroasted, iron pyrites (274).
II	
Korea Republic, Israel	Woven man-made fabric (653); Lime, cement, building products (661); Mineral manufactures nes (663); Pearl, precious, semi precious stone (667); Iron and steel casting unworked (679); Copper, excluding cement copper (682); Wire products non-electric (693); Steel copper nails, nuts etc. (694); Tools (695); Base metal household equipment (697); Travel goods, hand bags (831); Footwear (851).
III	
Brazil, Malaysia	Fixed vegetable oil, non-soft (422); Processed animal vegetable oil etc. (431); Carboxylic acids, etc. (513); Nitrogen function compounds (514); Perfumery cosmetics etc. (553); Products of condensation etc. (582); Steam engines, turbines (712); Other power generating machinery (718); Machines, nes, non-electric (719).

may further accentuate trade more intensively among NICs, if blocks so formed are converted into a cartel.³⁶ Such a cartel comprising of selected newly industrializing developing countries, in turn, is required to follow common strategies in respect of price decisions, cost reduction, tariff and non-tariff reduction etc. through tacit agreement. May be that concerted efforts towards joint ventures based on technological, industrial and financial cooperation may stimulate the intra-NICs trade among themselves. However, successfulness of cartel in selected NICs and in developing countries is yet to be ensured under the given international trading environment.

XI. Summing Up:

Theory of comparative advantage in its conventional and non-conventional treatment implies as to how the flows of trade between countries are determined by the micro and macro economic efficiency. It is, therefore, simply a transaction between efficiency and inefficiency of factors and commodities. Overtime, it has been noticed that share of export from traditional commodities declined, where as, that from non-traditional items improved in country's export basket. To explain this, we examined the comparative advantage at 3 digit levels of SITC grouping by identifying the pattern of revealed comparative advantage. General findings suggest that revealed comparative advantage in top 50 commodities has primarily been confined on traditional

goods in majority of NICs in first, second and the third period, though products from non-traditional sector have also portrayed the potential. Thus, it implied the validity factor proportion theory.

A radical shift in revealed comparative advantage, however, took place in some NICs in some export commodities. For instance, when we moved from first to second period, revealed comparative advantage confined on traditional sector goods in Malaysia, Pakistan and Argentina shifted towards the non-traditional goods exports, where as, a reverse happened in Korea Republic, Singapore and Turkey. The observed transformation in revealed comparative advantage in former was in line with the product cycle theory and the stages of comparative advantages once held by Balassa³⁷, where as, latter, was in line with factor proportion theory.

During the final period, the revealed comparative advantage in Pakistan, Malaysia and Argentina confined in non-traditional goods earlier shifted towards the traditional goods, while in Brazil, India, Israel, Korea Republic, Singapore and Turkey retained the revealed comparative advantage on traditional goods exports. It, thus, manifestes the general applicability of factor proportion theory held under H.O. model. Revealed comparative advantage relying mainly on traditional goods was primarily on account of advantages arising out of country's cheap labour conditioned by the local resource endowment structure, where as, on non-

traditional goods to the distortions introduced by the trade policies.

Study further examined the nature of competition and the correspondance between the export-supply and import-demand structure among NICs. Broadly speaking, most of the traditional commodities were found facing perfect while non-traditional commodities oligopolistic market structure characterised by cut-throat competition in terms of price and cost for marketing of their products. Further, dissimilarity in factor endowment structure was underlined among NICs in relation to the products directed to developed market economies (DMEs) and to the world. However, identical factor endowment structure was revealed for the products directed to the developing countries (DCs). Correspondance between export-supply and import-demand was generally found to be strong among NICs.

Thus, under the given general oligopolistic market structure, any attempt to enhance export from one NIC to an other would be futile and, therefore, intra-NICs trade cooperation is called for. It is suggested, therefore, that selected NICs should form three distinct blocks in order to enhance exports among themselves. The first block may specialize in primary commodities within the broad groups of food and live animals (0.0), beverages and tobacco (1.0) and crude materials (2.0) and may export to rest of the blocks. Second block, reciprocally, may specialise in commodities within the manufactured goods (6.0) and miscellaneous

manufacturing (8.0) and may export to the rest of the blocks. Similarly, third block, may specialise in commodities under animal vegetable oils and fats (4.0), chemicals (5.0) and machinery and transport equipment (7.0) and may export to rest of the blocks.

It is recommended that countries under three distinct blocks may ultimately be merged into a cartel. Objective of such cartel should be to maximise the collective benefits by adopting the appropriate policies and programmes conducive to their factor endowment structure. It is suggested that mere provision of incentives to the exporters may not be the appropriate trade policy and, therefore, an appropriate integration of trade policies with production planning with specific market-orientation may be more desirable and effective strategy for enhancing the export among NICs. It may, however, be noted that trade cooperation suggested here is primarily based on the export-performance indices, which do not recognise the element of competitiveness explicitly. Thus, the role of product's competitiveness in the formation of trade cooperation is yet to be appropriately ensured. Chapter IV, therefore, attempts to examine the competitiveness of export-commodities and suggests its usefulness in the formation of intra NICs trade cooperation.

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23. Panchmukhi, V.R., Ibid, p.65.
24. Panchmukhi, V.R., Ibid, Balassa, Bela, Ibid, Tiwari, R.S., op.cit.
25. Ibid.
26. Includes products from food and live animals (0.0), beverages and tobacco (1.0), Crude materials inedible except fuels (2.0), mineral fuels, lubricants and related materials (3.0), animal vegetable oils and fats (4.0) and manufactured goods classified by materials (6.0) excluding copper (68).
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Appendix-III-1.1 : Structure of Argentina's Exports over Different Points of Time

(Value in mill. US \$ and share in per cent)

SITC Code No.	Description of Commodities	Years' Averages							
		1969- 72	%	1974- 76	%	1979- 82	%	1984- 87	%
0.0	Food and live animals	1228.33	71.35	1323.27	57.50	5046.80	55.17	3219.18	46.97
1.0	Beverages and tobacco	8.61	0.50	36.84	1.60	42.57	0.47	47.73	0.70
2.0	Crude materials inedible except fuels	132.30	7.68	185.71	8.07	1123.20	12.28	863.82	12.61
3.0	Minerals, fuels, lubricants and related materials	8.49	0.49	14.66	0.64	619.87	6.78	164.70	2.40
4.0	Animal vegetable oils and fats	78.64	4.57	88.90	3.86	380.93	4.17	655.15	9.56
5.0	Chemicals	59.33	3.45	43.84	1.91	398.56	4.36	320.44	4.68
6.0	Manufactured goods classified by materials	94.58	5.49	141.40	6.14	913.23	9.99	970.33	14.16
7.0	Machinery and transport equipment	82.60	4.80	401.36	17.44	434.43	4.75	494.78	7.22
8.0	Miscellaneous manufactured articles	28.04	1.63	64.24	2.79	182.00	1.99	111.46	1.63
9.0	Goods not classified by kind	0.75	0.04	1.07	0.05	3.63	0.04	4.72	0.07
Total		1721.67	100.00	2301.29	100.00	9145.22	100.00	6852.31	100.00

Source : Commodity Trade Statistics, United Nations, Year Book of International Trade Statistics, United Nations and Monthly Statistics of Foreign Trade of India, DGCI & S, Calcutta, Various issues.

Appendix-III-1.2 : Structure of Brazilian Exports over Different Points of Time

(Value in mill. US \$ and share in per cent)

SITC Code No.	Description of Commodities	Years' Averages							
		1969- 72	%	1974- 76	%	1979- 82	%	1984- 87	%
0.0	Food and live animals	1589.56	59.37	3551.05	41.07	6828.48	33.84	7346.60	28.74
1.0	Beverages and tobacco	34.36	1.28	152.66	1.77	426.44	2.41	466.35	1.82
2.0	Crude materials inedible except fuels	637.80	23.82	2097.45	24.27	2798.19	13.87	3344.85	13.07
3.0	Minerals, fuels, lubricants and related materials	15.93	0.59	200.74	2.32	1443.53	7.16	1624.46	6.35
4.0	Animal vegetable oils and fats	67.49	2.52	270.28	3.13	541.76	2.69	838.01	3.27
5.0	Chemicals	38.71	1.45	185.61	2.15	909.11	4.51	1678.96	6.56
6.0	Manufactured goods classified by materials	209.57	7.83	748.64	8.66	2519.45	12.49	4602.74	17.98
7.0	Machinery and transport equipment	35.98	1.34	856.40	9.91	3461.21	17.16	3899.40	15.24
8.0	Miscellaneous manufactured articles	22.76	0.85	391.61	4.53	934.49	4.63	1556.69	6.08
9.0	Goods not classified by kind	22.55	0.95	189.43	2.19	250.39	1.24	236.01	0.923
Total		2677.71	100.00	8643.87	100.00	20173.05	100.00	25594.07	100.00

Source : Commodity Trade Statistics, United Nations, Year Book of International Trade Statistics, United Nations and Monthly Statistics of Foreign Trade of India, DGCI & S, Calcutta, Various issues.

Appendix-III-1.3 : Structure of India's Exports over Different Points of Time

(Value in mill. US \$ and share in per cent)

SITC Code No.	Description of Commodities	Years' Averages							
		1969- 72	%	1974- 76	%	1979- 82	%	1984- 87	%
0.0	Food and live animals	545.00	27.02	1427.00	29.04	1925.00	27.52	2177.00	22.34
1.0	Beverages and tobacco	57.00	2.83	124.00	2.52	142.00	2.03	146.00	1.50
2.0	Crude materials inedible except fuels	308.00	15.27	564.00	11.48	732.00	10.47	928.00	9.52
3.0	Minerals, fuels, lubricants and related materials	11.00	0.55	39.00	0.79	25.60	0.37	327.00	3.36
4.0	Animal vegetable oils and fats	8.70	0.43	39.00	0.79	55.00	0.79	25.00	0.26
5.0	Chemicals	32.00	1.59	116.00	2.36	207.00	2.96	381.00	3.91
6.0	Manufactured goods classified by materials	850.00	42.12	1399.00	28.47	2572.00	36.76	3546.00	36.37
7.0	Machinery and transport equipment	100.00	4.96	317.00	6.45	481.00	6.88	654.00	6.71
8.0	Miscellaneous manufactured articles	105.00	5.20	880.00	17.91	839.00	11.99	1530.00	15.70
9.0	Goods not classified by kind	0.60	0.03	9.30	0.19	16.00	0.23	32.00	0.33
Total		2017.30	100.00	4914.30	100.00	6994.60	100.00	9746.00	100.00

Source : Commodity Trade Statistics, United Nations, Year Book of International Trade Statistics, United Nations and Monthly Statistics of Foreign Trade of India, DGCI & S, Calcutta, Various issues.

Appendix-III-1.4 : Structure of Israel's Exports over Different Points of Time

(Value in mill. US \$ and share in per cent)

SITC Code No.	Description of Commodities	Years' Averages							
		1969- 72	%	1974- 76	%	1979- 82	%	1984- 87	%
0.0	Food and live animals	164.30	21.20	328.24	16.89	682.02	12.04	662.07	10.58
1.0	Beverages and tobacco	2.00	0.26	3.74	0.19	7.40	0.13	5.53	0.09
2.0	Crude materials inedible except fuels	37.86	4.89	95.11	4.89	336.63	5.94	332.36	5.15
3.0	Minerals, fuels, lubricants and related materials	0.11	0.01	0.18	0.01	17.77	0.31	1.20	0.02
4.0	Animal vegetable oils and fats	4.64	0.60	10.95	0.56	6.61	0.12	5.22	0.08
5.0	Chemicals	74.33	9.59	262.22	13.49	852.84	15.06	977.89	15.63
6.0	Manufactured goods classified by materials	367.12	47.36	874.70	45.03	2148.87	37.94	2285.35	36.53
7.0	Machinery and transport equipment	38.10	4.92	179.02	9.21	1034.66	18.27	1264.12	20.20
8.0	Miscellaneous manufactured articles	79.87	10.31	173.02	8.90	575.71	10.16	730.56	11.68
9.0	Goods not classified by kind	6.64	0.86	16.12	0.83	1.73	0.03	2.46	0.04
Total		774.97	100.00	1943.30	100.00	5664.24	100.00	6256.76	100.00

Source : Commodity Trade Statistics, United Nations, Year Book of International Trade Statistics, United Nations and Monthly Statistics of Foreign Trade of India, DGCI & S, Calcutta, Various issues.

Appendix-III-1.5 : Structure of Korea Republic's Exports over Different Points of Time

(Value in mill. US \$ and share in per cent)

SITC Code No.	Description of Commodities	Years' Averages							
		1969- 72	%	1974- 76	%	1979- 82	%	1984- 87	%
0.0	Food and live animals	65.54	7.90	602.31	11.87	1322.36	6.24	1567.82	4.52
1.0	Beverages and tobacco	14.23	1.72	67.77	1.34	119.26	0.56	97.13	0.28
2.0	Crude materials inedible except fuels	99.98	12.05	150.35	2.96	283.81	1.34	337.82	0.97
3.0	Minerals, fuels, lubricants and related materials	8.76	1.06	106.36	2.10	183.15	0.86	648.79	1.87
4.0	Animal vegetable oils and fats	--	--	0.86	0.02	14.84	0.07	3.77	0.01
5.0	Chemicals	11.32	1.36	74.64	1.47	643.34	3.03	1068.72	3.08
6.0	Manufactured goods classified by materials	217.05	26.17	1479.12	29.15	7218.58	34.05	8188.32	23.59
7.0	Machinery and transport equipment	59.92	7.22	700.75	13.81	4814.47	22.70	11658.10	33.57
8.0	Miscellaneous manufactured articles	352.35	42.48	1879.40	37.02	6491.85	30.61	11096.63	31.97
9.0	Goods not classified by kind	0.36	0.04	13.07	0.26	113.79	0.54	47.37	0.14
Total		829.51	100.00	5074.63	100.00	21205.45	100.00	34714.47	100.00

Source : Commodity Trade Statistics, United Nations, Year Book of International Trade Statistics, United Nations and Monthly Statistics of Foreign Trade of India, DGCI & S, Calcutta, Various issues.

Appendix-III-1.6 : Structure of Malaysia's Exports over Different Points of Time

(Value in mill. US \$ and share in per cent)

SITC Code No.	Description of Commodities	Years' Averages							
		1969- 72	%	1974- 76	%	1979- 82	%	1984- 87	%
0.0	Food and live animals	90.66	5.40	247.03	6.42	493.32	4.10	761.01	5.50
1.0	Beverages and tobacco	7.09	0.42	11.55	0.30	9.44	0.08	15.51	0.10
2.0	Crude materials inedible except fuels	898.86	53.58	1347.57	35.01	3245.90	26.98	3047.81	22.02
3.0	Minerals, fuels, lubricants and related materials	123.81	7.38	418.57	10.87	3447.98	28.66	3161.29	22.84
4.0	Animal vegetable oils and fats	101.08	6.02	631.25	16.40	1393.59	11.58	1398.32	10.10
5.0	Chemicals	11.90	0.71	33.07	0.86	100.94	0.84	234.18	1.69
6.0	Manufactured goods classified by materials	386.41	23.03	676.24	17.57	1124.02	9.34	1001.97	7.24
7.0	Machinery and transport equipment	29.50	1.76	238.77	6.20	1855.53	15.42	3490.16	25.24
8.0	Miscellaneous manufactured articles	14.16	0.84	220.57	5.73	321.94	2.68	693.87	5.01
9.0	Goods not classified by kind	14.39	0.86	24.77	0.64	38.02	0.32	35.50	0.26
Total		1677.86	100.00	3849.39	100.00	12030.68	100.00	13838.62	100.00

Source : Commodity Trade Statistics, United Nations, Year Book of International Trade Statistics, United Nations and Monthly Statistics of Foreign Trade of India, DGCI & S, Calcutta, Various issues.

Appendix-III-1.7 : Structure of Pakistan's Exports over Different Points of Time

(Value in mill. US \$ and share in per cent)

SITC Code No.	Description of Commodities	Years' Averages							
		1969- 72	%	1974- 76	%	1979- 82	%	1984- 87	%
0.0	Food and live animals	69.28	9.96	236.59	23.47	596.15	29.28	456.13	16.72
1.0	Beverages and tobacco	2.32	0.33	14.69	1.46	8.00	0.39	8.81	0.32
2.0	Crude materials inedible except fuels	217.15	31.23	201.75	20.02	153.81	7.55	502.20	18.41
3.0	Minerals, fuels, lubricants and related materials	8.40	1.21	11.06	1.10	138.02	6.78	39.00	1.43
4.0	Animal vegetable oils and fats	—	—	—	—	0.11	0.01	—	—
5.0	Chemicals	5.60	0.81	11.73	1.16	16.51	0.81	92.20	3.38
6.0	Manufactured goods classified by materials	358.38	51.54	450.00	44.65	900.43	44.22	1204.83	44.17
7.0	Machinery and transport equipment	3.38	0.49	6.58	0.65	36.43	1.79	27.33	1.00
8.0	Miscellaneous manufactured articles	30.31	4.36	68.69	6.81	175.17	8.60	372.56	13.66
9.0	Goods not classified by kind	0.47	0.07	6.87	0.68	11.62	0.57	24.77	0.91
Total		695.29	100.00	1007.96	100.00	2036.25	100.00	2727.83	100.00

Source : Commodity Trade Statistics, United Nations, Year Book of International Trade Statistics, United Nations and Monthly Statistics of Foreign Trade of India, DGCI & S, Calcutta, Various issues.

Appendix-III-1.8 : Structure of Singapore's Exports over Different Points of Time

(Value in mill. US \$ and share in per cent)

SITC Code No.	Description of Commodities	Years' Averages							
		1969- 72	%	1974- 76	%	1979- 82	%	1984- 87	%
0.0	Food and live animals	172.24	11.35	377.22	7.00	754.83	5.29	1201.36	5.37
1.0	Beverages and tobacco	20.38	1.34	17.41	0.32	60.51	0.42	152.49	0.68
2.0	Crude materials inedible except fuels	466.05	30.70	715.06	13.28	2029.18	14.23	1103.80	4.93
3.0	Minerals, fuels, lubricants and related materials	353.78	23.31	1939.35	36.02	3410.57	23.91	4661.44	20.84
4.0	Animal vegetable oils and fats	40.79	2.69	103.45	1.92	494.75	3.47	404.26	1.81
5.0	Chemicals	39.24	2.59	198.50	3.69	516.99	3.62	1310.73	5.86
6.0	Manufactured goods classified by materials	132.20	8.71	420.86	7.82	1253.92	8.79	1658.17	7.41
7.0	Machinery and transport equipment	168.69	11.12	1219.74	22.65	3779.76	26.51	8836.03	39.50
8.0	Miscellaneous manufactured articles	78.08	5.15	295.80	5.49	975.33	6.84	1606.63	7.18
9.0	Goods not classified by kind	46.10	3.04	97.63	1.81	986.31	6.92	1435.62	6.42
Total		1517.55	100.00	5385.02	100.00	14262.15	100.00	22370.53	100.00

Source : Commodity Trade Statistics, United Nations, Year Book of International Trade Statistics, United Nations and Monthly Statistics of Foreign Trade of India, DGCI & S, Calcutta, Various issues.

Appendix-III-1.9 : Structure of Turkey's Exports over Different Points of Time

(Value in mill. US \$ and share in per cent)

SITC Code No.	Description of Commodities	Years' Averages							
		1969- 72	%	1974- 76	%	1979- 82	%	1984- 87	%
0.0	Food and live animals	195.39	33.86	428.53	17.71	923.67	41.70	1863.96	24.93
1.0	Beverages and tobacco	79.09	13.70	184.90	7.64	180.21	8.14	278.18	3.72
2.0	Crude materials inedible except fuels	236.97	41.06	397.05	16.41	435.74	19.66	604.25	8.08
3.0	Minerals, fuels, lubricants and related materials	3.65	0.63	64.80	2.68	2.03	0.09	184.94	2.47
4.0	Animal vegetable oils and fats	0.44	0.08	18.02	0.74	39.56	1.79	79.77	1.07
5.0	Chemicals	9.40	1.63	31.71	1.31	23.72	1.07	404.89	5.42
6.0	Manufactured goods classified by materials	43.24	7.49	1182.88	48.87	459.45	20.74	2206.32	29.51
7.0	Machinery and transport equipment	3.13	0.54	19.39	0.80	43.49	1.96	434.64	5.81
8.0	Miscellaneous manufactured articles	5.81	1.01	92.95	3.84	107.11	4.94	1399.97	18.72
9.0	Goods not classified by kind	--	--	--	--	--	--	19.96	0.27
Total		577.12	100.00	2420.23	100.00	2214.98	100.00	7476.88	100.00

Source : Commodity Trade Statistics, United Nations, Year Book of International Trade Statistics, United Nations and Monthly Statistics of Foreign Trade of India, DGCI & S, Calcutta, Various issues.

Appendix-III.2.2 : Changing Pattern of Revealed Comparative Advantage in Brazil

C- Products with revealed comparative advantage during 1969-72 - 1974-76 (SITC NO.)	Products with revealed comparative advantage during 1974-76 - 1979-82			Products with revealed comparative advantage during 1979-82 - 1984-87		
	A -Products with RCA in 1969-72 - 1974-76 discontinued in 1974-76 - 1979-82 (SITC NO.)	B -Products having RCA in previous period retained in 1974-76 - 1979-82 (SITC NO.)	C - New Products with RCA added in 1974-76 - 1979-82 (SITC NO.)	A -Products with RCA in 1974-76 - 1979-82 discontinued in 1979-82 - 1984-87 (SITC NO.)	B -Products having RCA in previous period retained in 1979-82 - 1984-87 (SITC NO.)	C - New Products with RCA added in 1979-82 - 1984-87 (SITC NO.)
- Traditional Sector						
011, 013, 053, 055 061, 071, 072, 073 031, 099, 121, 221 251, 262, 265, 273 282, 284, 286, 292 422, 611, 612, 613 621, 633, 642, 652 653, 656, 657, 667 672	055, 061, 072, 121 221, 262, 273, 286 292, 612, 613, 621 633, 652, 653, 656 657, 667	011, 013, 053, 071 073, 081, 099, 251 265, 282, 284, 422 611, 642, 672	012, 025, 031, 044 242, 243, 276, 243 276, 285, 333, 423 631, 656, 675, 677	012, 013, 025, 031 044, 053, 073, 242 251, 282, 284, 285 333, 611, 656, 677	011, 071, 081, 099 243, 265, 276, 422 423, 631, 642, 672 675	047, 061, 072, 121 231, 261, 281, 292 612, 613, 657, 663 673, 683, 634, 685 689, 699
Total	33	18	15	16	13	18
- Non-Traditional Sector						
513, 514, 515, 553 582, 712, 715, 718 719, 733, 821, 831 841, 843, 863, 898	515, 553, 831, 841 843, 863, 898	513, 514, 582, 712 715, 718, 719, 733 821	522, 562, 572, 713 721, 723, 725, 726 731, 735, 736, 892	522, 562, 713, 731 733, 735, 736, 821 892	513, 514, 572, 582 712, 715, 718, 719 721, 723, 725, 726	533, 551, 553, 716 842, 862, 863
Total	16	7	9	9	12	7

Appendix-III.2.3 : Changing Pattern of Revealed Comparative Advantage in India

c- Products with revealed comparative advantage during 1969-72 - 1974-76 (SITC NO.)	Products with revealed comparative advantage during 1974-76 - 1979-82			Products with revealed comparative advantage during 1979-82 - 1984-87		
	A -Products with RCA in 1969-72 - 1974-76 discontinued in 1974-76 - 1979-82 (SITC NO.)	B -Products having RCA in previous period retained in 1974-76 - 1979-82 (SITC NO.)	C - New Products with RCA added in 1974-76 - 1979-82 (SITC NO.)	A -Products with RCA in 1974-76 - 1979-82 discontinued in 1979-82 - 1984-87 (SITC NO.)	E -Products having RCA in previous period retained in 1979-82 - 1984-87 (SITC NO.)	C - New Product with RCA added in 1979-82 - 1984-87 (SITC NO.)
- Traditional Sector						
022, 023, 034, 041, 042, 043, 048, 061, 074, 075, 081, 099, 121, 122, 223, 261, 263, 291, 321, 431, 611, 612, 652, 654, 662, 664, 667, 671, 676, 692, 695, 697, 698, 699	042, 695	022, 023, 034, 041, 043, 048, 061, 074, 075, 081, 099, 121, 122, 223, 261, 291, 321, 431, 611, 612, 652, 654, 662, 664, 667, 671, 676, 692, 697, 698, 699	651, 657, 658	022, 023, 034, 042, 043, 043, 074, 075, 081, 099, 223, 263, 662, 698, 699, 1084-87	041, 043, 074, 075, 081, 099, 223, 263, 662, 698, 699, 1084-87	012, 014, 035, 036, 267, 273, 281, 287, 611, 621, 652, 642, 657, 658, 689
total 34	2	32	3	24	8	19
- Non-Traditional Sector						
531, 533, 541, 553, 571, 716, 721, 724, 812, 843, 844, 892, 893, 896, 987	--	531, 533, 541, 553, 571, 716, 721, 724, 812, 843, 844, 892, 893, 896, 987	--	531, 541, 553, 571, 533, 716, 721, 724, 812, 843, 844, 892, 893, 896, 897	516, 551, 585, 599, 712, 726, 745, 783, 791, 841, 842, 847, 873, 891, 895, 897	5
total 15	--	15	--	14	1	21

Appendix-III.2.4 : Changing Pattern of Revealed Comparative Advantage in Israel

c- Products with revealed comparative advantage during 1969-72 - 1974-76 (SITC NO.)	Products with revealed comparative advantage during 1974-76 - 1979-82			Products with revealed comparative advantage during 1979-82 - 1984-87		
	A -Products with RCA in 1969-72 - 1974-76 discontinued in 1974-76 - 1979-82 (SITC NO.)	B -Products having RCA in previous period retained in 1974-76 - 1979-82 (SITC NO.)	C - New Products with RCA added in 1974-76 - 1979-82 (SITC NO.)	A -Products with RCA in 1974-76 - 1979-82 discontinued in 1979-82 - 1984-87 (SITC NO.)	B -Products having RCA in previous period retained in 1979-82 - 1984-87 (SITC NO.)	C - New Products with RCA added in 1979-82 - 1984-87 (SITC NO.)
- Traditional Sector						
011, 023, 025, 051	023, 025, 053, 055	011, 051, 054, 062	024, 062, 098, 122	011, 024, 051, 054	098, 267, 271, 292	025, 048, 058, 073
053, 054, 055, 062	251, 286, 276, 292	263, 271, 663, 667	222, 223, 257, 268	062, 112, 122, 222	621, 663, 667, 681	091, 269, 278, 641
112, 251, 263, 266	650, 678, 682, 692	684, 695	292, 621, 642, 655	223, 268, 292, 621	682, 693, 695	679, 685
271, 276, 292, 656	698		657, 662, 681, 682	621, 642, 655, 657		
663, 667, 678, 682			686, 693, 699	662, 681, 682, 686		
684, 692, 695, 698				693, 699		
total	24	13	10	19	22	11
- Non-traditional Sector						
512, 513, 514, 533			515, 516, 521, 531	515, 521, 531, 551	516, 714, 716, 721	512, 513, 514, 522
551, 553, 554, 561			582, 716, 718, 721	582, 718, 821, 842	872, 893, 894, 898	523, 541, 562, 598
571, 581, 711, 712			821, 842, 843, 872	843, 895, 896		728, 736, 741, 742
714, 717, 719, 723			893, 894, 896, 898			759, 775, 792, 848
732, 733, 734, 812						882, 884, 885, 897
872, 895, 896, 897						
total	24		16	11	9	20

Appendix-III.2.5 : Changing Pattern of Revealed Comparative Advantage in Korea Republic

c- Products with revealed comparative advantage during 1969-72 - 1974-76 (SITC NO.)	Products with revealed comparative advantage during 1974-76 - 1979-82			Products with revealed comparative advantage during 1979-82 - 1984-87		
	A -Products with RCA in 1969-72 - 1974-76 discontinued in 1974-76 - 1979-82 (SITC NO.)	B -Products having RCA in previous period retained in 1974-76 - 1979-82 (SITC NO.)	C - New Products with RCA added in 1974-76 - 1979-82 (SITC NO.)	A -Products with RCA in 1974-76 - 1979-82 discontinued in 1979-82 - 1984-87 (SITC NO.)	B -Products having RCA in previous period retained in 1979-82 - 1984-87 (SITC NO.)	C - New Products with RCA added in 1979-82 - 1984-87 (SITC NO.)
Traditional Sector						
112, 031, 032, 099	012, 031, 031, 032	267, 273, 641, 642	034, 062, 098, 266	034, 098, 266, 267	062, 625, 653, 656	244, 612, 654, 67
111, 267, 273, 612	099, 111, 612, 621	653, 661, 662, 663	268, 282, 625, 656	268, 273, 282, 641	663, 661, 677, 679	685
621, 629, 631, 632	629, 631, 632, 651	666, 672, 673, 674	675, 681, 682, 686	642, 666, 672, 673	681, 691, 693, 694	
641, 642, 651, 653	654, 655, 664	677, 678, 679, 693	689, 691, 598	674, 675, 678, 682	697	
654, 655, 661, 662		694, 696, 697		685, 689, 696, 698		
663, 664, 666, 672						
673, 674, 677, 678						
679, 693, 694, 696						
697						
total 33	15	19	15	20	13	5
Non-Traditional Sector						
723, 724, 731, 821	723, 724, 731, 821	831, 842, 851, 894	514, 516, 562, 582	514, 516, 562, 716	582, 715, 812, 831	531, 744, 751, 7
831, 841, 842, 851	841, 864, 891, 892	899	715, 716, 812, 872	842, 872, 894, 899	851	761, 764, 771, 7
864, 891, 892, 893	893, 897					776, 782, 784, 7
894, 897, 899						786, 792, 793, 8
						896, 874, 883, 8
total 15	10	5	8	8	5	20

Appendix-III.2.6 : Changing Pattern of Revealed Comparative Advantage in Malaysia

Products with revealed comparative advantage during 1969-72 - 1974-76	Products with revealed comparative advantage during 1974-76 - 1979-82			Products with revealed comparative advantage during 1979-82 - 1984-87		
	A - Products with RCA in 1969-72 - 1974-76 discontinued in 1974-76 - 1979-82	B - Products having RCA in previous period retained in 1974-76 - 1979-82	C - New Products with RCA added in 1974-76 - 1979-82	A - Products with RCA in 1974-76 - 1979-82 discontinued in 1979-82 - 1984-87	B - Products having RCA in previous period retained in 1979-82 - 1984-87	C - New Products with RCA added in 1979-82 - 1984-87
(SITC NO.)	(SITC NO.)	(SITC NO.)	(SITC NO.)	(SITC NO.)	(SITC NO.)	(SITC NO.)
- Traditional Sector						
025, 031, 032, 048	025, 031, 032, 053	048, 062, 072, 112	022, 024, 043, 046	024, 043, 048, 062	022, 046, 047, 072	011, 025, 037, 0
053, 054, 062, 072	054, 075, 231, 242	273, 431, 663, 664	047, 091, 098, 099	091, 099, 111, 112	098, 274, 282, 431	223, 232, 247, 2
075, 112, 231, 242	243, 251, 265, 266	692	111, 223, 264, 267	223, 264, 267, 273		261, 269, 287, 2
243, 251, 265, 266	275, 283, 284, 321		274, 282, 621, 633	631, 652, 663, 664		287, 323, 333, 3
273, 275, 283, 284	331, 422, 631, 652		642, 651, 653, 676	675, 679, 687, 689		424, 612, 613, 6
321, 331, 422, 431	675, 679, 687, 689		677, 683, 685, 692	691, 692		634, 635, 671
631, 652, 663, 664	691		699			
675, 679, 687, 689						
691, 692						
total 34	25	9	25	22	8	23
- Non-Traditional Sector						
553, 571, 581, 599	571, 581, 599, 712	553	533, 551, 554, 577	533, 551, 582, 716	553, 554, 572, 723	591, 598, 713,
712, 714, 719, 722	714, 719, 722, 734		582, 716, 721, 723	721, 892, 893, 894	872	761, 762, 772,
734, 812, 821, 851	812, 821, 851, 861		872, 892, 893, 894	895, 899		777, 782, 793,
861, 862	862		895, 899			881
total 14	13	1	14	10	5	13

Appendix-III.2.7 : Changing Pattern of Revealed Comparative Advantage in Pakistan

Products with revealed comparative advantage during 1969-72 - 1974-76	Products with revealed comparative advantage during 1974-76 - 1979-82			Products with revealed comparative advantage during 1979-82 - 1984-87		
	A - Products with RCA in 1969-72 - 1974-76 discontinued in 1974-76 - 1979-82	B - Products having RCA in previous period retained in 1974-76 - 1979-82	C - New Products with RCA added in 1974-76 - 1979-82	A - Products with RCA in 1974-76 - 1979-82 discontinued in 1979-82 - 1984-87	B - Products having RCA in previous period retained in 1979-82 - 1984-87	C - New Products with RCA added in 1979-82 - 1984-87
(SITC NO.)	(SITC NO.)	(SITC NO.)	(SITC NO.)	(SITC NO.)	(SITC NO.)	(SITC NO.)
- Traditional Sector						
022, 023, 024, 042	048, 075, 091, 122	022, 023, 024, 042	012, 025, 031, 032	024, 025, 031, 032	012, 022, 023, 042	035, 061, 223, 246, 263, 268, 611, 613, 634, 658, 659, 663, 686
046, 048, 075, 091	211, 212, 243, 263	046, 049, 112, 231	043, 055, 222, 241	043, 046, 055, 097	112, 241, 274, 291	
099, 112, 122, 211	267, 275, 284, 292	274, 321, 341, 431	261, 262, 273, 291	222, 231, 261, 262	651, 683, 685	
122, 211, 212, 231	231, 411, 421, 611	656, 657, 664	332, 629, 633, 651	273, 321, 322, 341		
243, 263, 267, 274	621, 631, 652, 661		682, 683, 684, 685	431, 629, 633, 656		
275, 284, 292, 321	674, 675, 676, 678		696	657, 664, 682, 684		
331, 341, 411, 421	686, 689			696		
431, 611, 621, 631						
652, 656, 657, 661						
664, 674, 675, 676						
678, 686, 689						
Total 43	26	15	21	25	11	17
- Non-Traditional Sectors						
512, 554, 734, 831	512, 554, 734, 831	841, 899	515, 571, 599, 719	515, 571, 599, 719	726	511, 531, 572, 584, 591, 713, 743, 745, 759, 777, 778, 785, 847, 872, 881, 896
841, 864, 875, 899	864, 895		722, 726, 729, 735	722, 729, 735, 841		
			861, 871, 891	861, 871, 891, 899		
Total 8	6	2	11	12	1	21

Appendix-III.2.8 : Changing Pattern of Revealed Comparative Advantage in Singapore

- Products with revealed comparative advantage during 1969-72 - 1974-76 (SITC NO.)	Products with revealed comparative advantage during 1974-76 - 1979-82			Products with revealed comparative advantage during 1979-82 - 1984-87		
	A -Products with RCA in 1969-72 - 1974-76 discontinued in 1974-76 - 1979-82 (SITC NO.)	B -Products having RCA in previous period retained in 1974-76 - 1979-82 (SITC NO.)	C - New Products with RCA added in 1974-76 - 1979-82 (SITC NO.)	A -Products with RCA in 1974-76 - 1979-82 discontinued in 1979-82 - 1984-87 (SITC NO.)	B -Products having RCA in previous period retained in 1979-82 - 1984-87 (SITC NO.)	C - New Products with RCA added in 1979-82 - 1984-87 (SITC NO.)
- Traditional Sector						
022, 046, 048, 075 091, 211, 241, 271 274, 275, 284, 285 331, 332, 341, 411 631, 641, 664, 675 676, 686, 689, 691 695, 697	022, 091, 271, 275 284, 285, 331, 332 411, 631, 641, 664 675, 676, 686, 691 695, 697	046, 048, 075, 211 241, 274, 341, 689	012, 023, 025, 044 062, 073, 098, 111 112, 222, 231, 264 267, 291, 431, 633 642, 655, 662, 665 682, 683, 685, 687 692, 699	025, 044, 046, 062 075, 098, 222, 231 264, 267, 291, 341 431, 633, 642, 662 665, 682, 683, 685 689, 692	012, 023, 048, 073 111, 112, 211, 241 274, 655, 687, 697 613, 634, 641, 642	022, 122, 233, 241 283, 323, 334, 335 613, 634, 641, 642 642, 655, 662, 665 682, 683, 685, 687 692, 699
total	26	18	8	26	22	12
- Non-Traditional Sector						
531, 533, 541, 551 554, 582, 599, 712 714, 715, 718, 719 722, 724, 725, 729 732, 734, 735, 862 864, 892, 895	531, 541, 582, 599 712, 714, 715, 718 719, 722, 724, 725 729, 732, 734, 735 862, 864	533, 551, 554, 892 895	513, 553, 721, 723 726, 821, 893	513, 533, 551, 721 723, 821, 893, 895	553, 554, 726, 892 514, 515, 516, 517 572, 583, 584, 585 713, 716, 725, 726 742, 743, 752, 753 773, 882	514, 515, 516, 517 572, 583, 584, 585 713, 716, 725, 726 742, 743, 752, 753 773, 882
total	23	18	5	7	6	4

Appendix III.2.9 : Changing Pattern of Revealed Comparative Advantage in Turkey

- Products with revealed comparative advantage during 1969-72 - 1974-76 (SITC NO.)	Products with revealed comparative advantage during 1974-76 - 1979-82			Products with revealed comparative advantage during 1979-82 - 1984-87		
	A - Products with RCA in 1969-72 - 1974-76 discontinued in 1974-76 - 1979-82 (SITC NO.)	B - Products having RCA in previous period retained in 1974-76 - 1979-82 (SITC NO.)	C - New Products with RCA added in 1974-76 - 1979-82 (SITC NO.)	A - Products with RCA in 1974-76 - 1979-82 discontinued in 1979-82 - 1984-87 (SITC NO.)	B - Products having RCA in previous period retained in 1979-82 - 1984-87 (SITC NO.)	C - New Products with RCA added in 1979-82 - 1984-87 (SITC NO.)
- Traditional Sector						
011, 046, 052, 053	011, 062, 121, 122	046, 052, 053, 054	041, 045, 048, 051	041, 045, 051, 052	046, 048, 054, 266	024, 025, 037, 05
054, 055, 062, 112	211, 261, 212, 273	055, 112, 262, 263	074, 075, 099, 242	053, 055, 074, 075	651, 665	058, 091, 121, 26
121, 122, 211, 212	283, 291, 292, 332	276, 642, 651, 656	266, 321, 629, 655	099, 112, 242, 262		269, 278, 291, 32
261, 262, 263, 273	613, 641, 652, 661	657, 665, 671	662, 689	263, 276, 321, 421		411, 652, 658, 65
283, 291, 292, 332	661, 663, 664, 682			422, 629, 642, 655		664, 672, 673, 67
613, 641, 642, 651	684, 692, 697			656, 657, 662, 671		678, 682, 686, 68
652, 656, 657, 661				689		
663, 664, 665, 671						
682, 684, 692, 697						
total 36	23	15	14	25	6	24
- Non-Traditional Sector						
512, 521, 541, 599	512, 521, 541, 599	718, 732, 895	513, 514, 532, 551	514, 532, 711, 712	513, 551, 724	522, 523, 562, 7
715, 718, 732, 812	715, 812, 841, 851		711, 712, 717, 719	717, 718, 719, 722		742, 749, 774, 7
841, 851, 895, 899	899		722, 724, 725, 729	724, 725, 729, 842		812, 843, 844, 8
			842, 892, 893	892, 893, 895		846, 848, 873
total 12	9	3	15	15	3	15

Source : Commodity Trade Statistics, United Nations, Year Book of International Trade Statistics, United Nations and Monthly Statistics Foreign Trade of India, DGCI & S, Calcutta, Various issues.

Appendix-III.3 : Description of Commodities at 3 digit SITC Groupings

SITC Code No.	Commodities
<hr/>	
011	Meat fresh, chilled, frozen
012	Meat dried, salted, smoked
013	Meat tinned nes or prepared
014	Meat prepared, preserved nes
022	Milk and cream
023	Butter
024	Cheese and curd
025	Eggs, birds, fresh preserved
031	Fish, fresh, simply preserved
032	Fish etc, tinned prepared
034	Fish fresh, chilled frozen
035	Fish salted, dried, smoked
036	Shell fish fresh frozen
037	Fish etc. prepared, preserved nes
041	Wheat etc. unmilled
042	Rice
043	Barley unmilled
044	Maize Unmilled
045	Cereals
046	Wheat etc. meal or flour
047	Other cereal, meals flour

Appendix-III.3 Contd..

048	Cereal etc. preparations
051	Fruit fresh nuts fresh dry
052	Dried fruit
053	Fruit preserved, prepared
054	Vegetable etc. fresh, simply preserved
055	Vegetables etc. preserved prepared
056	Vegetables etc. preserved
057	Fruit, nuts, fresh, dried
058	Fruit preserved, prepared
061	Sugar and honey
062	Sugar candy non-chocolate
071	Coffee and substitutes
072	Cocoa
073	Chocolate and products
074	Tea and mate
075	spices
081	Feeding stuff for animals
091	Margarine and shortening
098	Edible products, preparations nex
099	Food preparations nes
111	Non-alcoholic beverages nes
112	Alcoholic beverages
121	Tobacco unmanufactured
122	Tobacco manufactured
211	Hides, skins etc. furs raw
212	Fur skins raw

Appendix-III.3 Contd..

221	Oil seeds ollaginous frt.
222	Seeds for soft fixed oil
223	Seeds for other fixed oils
231	Rubber crude, synthetic
232	Natural rubber, gums
233	Rubber, synthetic, reclaimed
241	Fuel wood and charcoal
242	Wood rough
243	Wood shaped
244	Cork, natural, raw, waste
245	Fuel wood, nes, charcoal
246	Pulpwood, chips, wood waste
247	Other wood rough, squared
248	Wood shaped, sleepers
251	Pulp and waste paper
261	Silk
262	Wool and animal hair
263	Cotton
264	Jute other textile based fibres
265	Vegetable fibre excluding cotton jute
266	Synthetic fibres to skin
267	Other manmade fibres
268	Wool (excluding tops) animal hair
269	Waste of textile fabrics
271	Fertilizers crude
273	Stone, sand and gravel

Appendix-III.3 Contd..

274	Sulphur, unroasted iron pyrites
275	Natural abrasives
276	Other crude minerals
277	Natural abrasives nes
278	Other crude minerals
279	Mineral crude nes
281	Iron ore concentrates
282	Iron and steel scrap
283	Non-ferrous base metal ore, concentrate
284	Non-ferrous metal scrap
285	Silver and platinum ores
286	Uranium, thorium ore, concentrates
287	Base metal ores, concentrates
288	Non-ferrous metal scrap nes
289	Precious metal, ores, waste, nes
291	Crude animal materials nes
292	Crude vegetable materials nes
321	Coal, coke, briquettes
322	Coal, lignite and peat
323	Briquettes, coke, semi-coke
331	Crude petroleum etc.
332	Petroleum products
333	Crude petroleum
334	Petroleum products refined
335	Residual petroleum products nes
341	Gas, natural and manufactured

Appendix-III.3 Contd..

351	Electric current
411	Animal oils and fats
421	Fixed vegetable oil, fats
422	Fixed vegetable oil, non-soft
423	Fixed vegetable oil, soft
424	Fixed vegetable oil, non-soft nes
431	Processed animal vegetable oil etc
511	Hydrocarbons nes derives
512	Alcoholic phenols etc
513	Carboxylic acids, etc
514	Nitrogen function compounds
515	Organic-inorganic compounds etc
516	Other organic chemicals
521	Inorganic chemicals
522	Inorganic elements, oxides, etc
524	Radioactive etc material
531	Synthetic, not, indigo, lakes
532	Dyes, nes, tanning products
533	Pigments, paints, etc
541	Medicinal and pharmaceutical products
551	Essential oils, perfume etc
553	Perfumery cosemetics, etc
554	Soap cleaning etc preparations
561	Fertilizers manufactured
571	Explosives, phyrotech, products
581	plastic materials etc

Appendix-III.3 Contd..

582	Products of condensation etc
583	Polymerization etc. products
584	Cellulose derivatives etc
585	Plastic materials, nes
591	Pesticides, disinfectants
592	Starch, inulin, gluten, etc
598	Misc. chemical products nes
599	Chemicals nes
611	Leather
612	Leather etc. manufactures
613	Fur skins tanned, dressed
621	Materials of rubber
625	Rubber tyres, tubes, etc
628	Rubber articles nes
633	Cork manufactures
634	Veeners, plywood, etc
631	
635	Wood manufactures nes
632	
641	Paper and paper board
642	Paper etc, pre cut, arts of
651	Textile yarn
652	Cotton fabrics, woven
653	Woven man-made fabric
654	Other woven textile fabric
655	Knitted etc, fabrics

Appendix-III.3 Contd..

656	Lace, ribbons, tulle, etc
657	Special fabric, products
658	Textile article nes
659	Floor coverings, etc
661	Lime, cement, building products
662	Clay, refractory building products
663	Mineral manufactures nes
664	Glass
665	Glass ware
666	Pottery
667	Pearl, precious, semi-precious stone
671	Pig iron etc
672	Iron, steel, primary forms
673	Iron, steel shapes etc
674	Iron, steel universal, plate, sheet
675	Iron and steel, hoop, strip
676	Railway rails etc iron, steel
677	Iron and steel wire (excluding wire rod)
678	Iron and steel tubes, pipes, etc
679	Iron and steel castings unworked
681	Silver, platinum, etc
682	Copper, excluding cement copper
683	Nickel
684	Aluminium
685	Lead
686	Zinc

Appendix-III.3 Contd..

687	Tin
689	Non-ferrous base metals nes
691	Structures and parts nes
692	Metal tanks, boxes, etc
693	Wire products non-electric
694	Steel copper nails, nuts etc
695	Tools
696	Cutlery
697	Base metal household equipment
698	Metal manufactures nes
699	Base metal manufactures nes
711	Steam boilers and auxiliary plant
712	Steam engines, turbines
713	Internal combustion piston engine
714	Engines and motor nes
716	Rotating electric plant
718	Other power generating machinery
719	Machines, nes non-electric
721	Agricultural machinery, excluding tractors
722	Tractors non-road
723	Civil engineering equipment etc
724 717	Textile, leather machinery
725	Paper etc. mill machinery
726	Printing, book binding machinery, parts
727	Food machinery non-domestic

Appendix-III.3 Contd..

728	Other machinery for special industries
733	Road vehicles non motor
736 715	Metal working machinery
737	Metal working machinery nes
741	Heating cooling equipment
742	Pumps for liquids etc
743	Pumps nes centrifuges etc
744	Mechanical handling equipment
745	Non-electric machinery tools nes
749	Non-electric machinery, parts nes
751	Office machines
752	Automatic data processing equipment
759	Office, automatic data processing machine parts etc.
761	Television receivers
762	Radio broadcast receivers
764	Telecommunications, equipment, parts nes
771	Electric power machinery nes
772	Switchgear etc. parts nes
773	Electric distributing equipment
774	Electro-medical, X ray equipment
775	Household type equipment nes
776 777	Transistors, valves, etc..
778 729	Electrical machinery nes
781	Passenger motor vehicle excluding buses

Appendix-III.3 Contd..

782	Lorries special motor vehicle nes
783	Road motor vehicles nes
732	
784	Motor vehicle parts, accessories nes
785	Cycles, etc. motorised or not
786	Traillers, non motor vehicle nes
791	Railway vehicles
731	
792	Aircraft etc
734	
793	Ships and boats etc.
735	
842	Plumbing, heating, lighting equipment
821	Furniture, parts there of
831	Travel goods, hand bags
841	Clothing not of fur
842	Men's outer wear not knit
843	Women's outer wear non-knit
844	Under garments not knit
845	Outer wear knit non-elastic
846	Under garments knitted
847	Textile clothing accessories nes
848	Head gear, non-textile clothing
851	Foot wear
861	Instrument apparatus
862	Photo, cinema supplies
871	Optical instrument
872	Medical instruments nes

Appendix-III.3 Contd..

873	Meters and counters nes
874	Measuring and controlling instruments
881	Photo apparatus equipment nes
882	Photo cinema supplies
883	Developed cinema films
863	
884	Optical goods nes
885	Watches and clocks
864	
891	Sound recorders products
892	Printed matter
893	Articles of plastic nes
894	Toys, sporting goods etc
895	Office supplies, nes
896	Works of art etc
897	Gold, silver, ware, jewelry
898	Musical instruments, parts
899	Other manufactured goods
931	Special transactions
941	Zoo animals, pots etc
951	War fire arms, ammunition
961	Coin nongold, non current
971	Gold, non monetary nes

Source : Commodity Trade Statistics, United Nations, 1987.

CHAPTER IV

COMPETITIVENESS AND TRADE COOPERATION

I. Concept of Competitiveness

Present chapter examines the formation of intra-NICs trade cooperation on the basis of export competitiveness. The competitiveness is an all embracing concept, which reflects the influence of price and non-price factors. The exact measurement of competitiveness has always been incomplete and imprecise and the most commonly used method of unit value of export is too aggregative to capture its diverse dimensions. Although, price of the product is an important element of competitiveness, but apart from this, it also connotes "managerial attitudes, innovation, marketing, product quality and style, advertising, delivery dates, service, credit facilities and public relations".¹ All these elements are influenced primarily by the internal supply conditions of the exporting country, though competitiveness

can also be affected, to some extent, by external demand factors. The competitiveness thus can be thought of as the competitive ability of export country in terms of price and non-price factors with a specific objective to improve the exportability of a commodity in the foreign market.

Thus, if the price of a product is lower, higher the export demand and so greater the level of its competitiveness and vice-versa. A change in relative prices thus affects the competitiveness of export. It must, however, be emphasised that variation in relative prices is determined largely by the internal factors though, external factors such as development of substitutes and tariff and non-tariff barriers can also make some products sensitive to relative price changes.

Internal factors influencing the competitiveness mainly relate to production and marketing of the commodity. The important elements on production are cost of production, productivity, profitability, home demand and tariff and taxes. Reduced cost of production, increased level of productivity, export subsidy and decreased level of home demand will have a favourable effect on relative prices and, therefore, on competitiveness. To a large extent, these elements are influenced by domestic factor markets, economic structure of production and marketing and so also by domestic policies of the exporting country.

Export competitiveness is also influenced by number of non-price elements. Its importance can be gauged with reference to the design-quality, which "includes performance, reliability and appearance"² It is generally held that a superior quality of product-design may fetch a higher price advantage even if the export demand remains the same. Number of factors influencing design quality inter-alia are the structure of production³ and government policies⁴. Another important element influencing competitiveness is the marketing of product which means "not only selling but also attitudes to the market and relations with consumers",⁵ A part, from above, other non-price elements include such factors as "flexibility in the provision of short-term credit, technical assistance in the installation of capital goods after sales services, good-will visit and public relations".⁶ All these factors affect the marketability and hence the competitiveness of export.

The price and non-price elements per-se determining the nature of competitiveness, in turn, are influenced by domestic resource endowment, structure of production, development strategy, industrial, commercial, fiscal, foreign trade and other policies of the exporting country. To that extent observed state of export competitiveness can be thought of largely the outcome of efficacy of domestic policies of the exporting country rather than the export demand and other conditions in the foreign markets.

A caveat must be added. Total competitiveness of a country's export can, to some extent, be affected by the external factors. Trade-barriers in import-markets are a typical example. The severity of tariff and non-tariff barriers by the import-markets impairs the competitiveness, whereas, liberalisation of trade policies improves upon the export competitiveness. In effect, competitiveness of country's exports depends on the combined effect of both price and non-price factors under the influence of conditions internal as well as external to the exporting country. Present chapter attempts at examining the state of competitiveness in selected newly industrializing developing countries (NICs). The role of price, non-price, trade and production policies internal as well as external to the exporting country has also been examined in determining the competitiveness of export and thereby the trade cooperation among selected newly industrialising developing countries (NICs).

II. Approaches Used for Measuring the Competitiveness

For examining competitiveness of export three approaches have generally been used viz. (a) domestic resource cost approach,⁷ (b) fixed and variable cost approach (FVC)⁸ and (c) constant-market-share approach (CMS)⁹. Competitiveness measured through the use of DRC connotes that higher the DRC, lower the per unit of foreign exchange earned

(or saved) and hence lower the competitiveness of export and vice-versa. Domestic resource cost approach, though used extensively in the trade literature, suffers from three basic shortcomings. Firstly, the use of DRC is based on certain idealistic assumptions viz., (1) absence of transport cost, (2) absence of factor mobility, and (3) existence of perfect factor market. Secondly, values of DRC are likely to be different with the presence of a complex system of export taxes and tariffs.¹⁰ And thirdly, the computation of domestic resource cost at disaggregated commodity level is extremely a difficult task because of paucity of required data.¹¹

FVC approach used in earlier study was also found unsatisfactory. Following this approach, one study¹² compared fixed and wage costs of sixteen exportable products between exporting country and rival countries. This, apart from posing the severe problem of non-comparability due to multi-product and unequal sizes of cost element (variable and fixed), has nearly led to rough generalisation than to concrete solution of the problem. In FVC approach, competitiveness influenced by supply side factors is overstressed ignoring thereby the factors on external demand. Implication derived there from the FVC model is, thus, likely to be limited from the view-point of export competitiveness. Considering the limitations, both the analytical and operational of DRC and FVC approaches, the constant-market-share model has been applied¹³ to analyse and examine the

competitiveness of exports in selected newly industrializing developing countries (NICs).

III. Constant-Market-Share-Model : An Analytical Interpretation

Constant-market-share-model (CMS) is yet another method used for examining the competitiveness of country's export. Here, country's export performance is viewed in relation to that of world average. Assuming that country's share in the world market remains constant over time, the difference between the export growth implied by constant-share-norm and the actual export performance is attributed to the effect of foreign demand conditions and other external factors and to the country's own competitiveness.¹⁴ The CMS model by a procedure of decomposing eliminates from a given country's actual export performance those changes accounted for by the size and the pattern of world trade and attributes the residual portion of the change in export to competitiveness.

Thus, the failure of a country to expand its exports as fast as the world average may be due to the concentration of inelastic commodities in its export basket (commodity composition effect) or due to concentration on the stagnant export markets (market distribution effect). These effects, by and large, reflect the influence of external demand conditions on the country's export performance.

Alternatively, the poor export performance of the country in question may be due to the lack of its own competitiveness, which can be said to be primarily determined by domestic factors (both on supply and demand, price and non-price elements) in the exporting country. In a similar fashion, the success of a country's export expansion as compared to the world average can be explained by the joint effect of favourable commodity composition effect and market distribution effect on the one hand and on the other by the positive competitiveness effect.

In the CMS model, the total effect of all these factors, price and non-price and internal and external on the export of a country is disentangled into four major components viz., (1) world trade effect, (2) commodity composition effect, (3) market distribution effect, and (4) the residual competitiveness effect. The competitiveness effect arrived therefrom as the residual indicates the strength or weakness of the internal (domestic) policies. It is thus possible with the help of CMS model to distinguish the influence of external demand conditions and the internal factors as an explanation of the observed export performance.

In terms of analytical procedure, at the first stage all import markets and export products are "completely undifferentiated as to commodity and region of destination. That is to say, export is viewed as a single good destined for a single market".¹⁵ This is called world trade effect, which can be explained in terms of following identity:

$$\sum_{i=1}^n rX_i = rX \quad \dots\dots\dots (1)$$

Where X and X_i are respectively the total export and export of i th commodity group by the export country at the base year and r is percentage increase of total world export between two reference years. To be more precise, percentage increase is the actual world export in the terminal year divided by the base year minus one.¹⁶ The number of export products under consideration is represented by " n " (in the present study the total number of products considered is $n = 55$).

At the second stage, export of the country is disaggregated into different commodity classes. It indicates the magnitude of concentration of export-commodity by the exporting country vis-a-vis the rest of the world. The favourable commodity composition effect implies that the exports "are concentrated in commodity classes with growth rates more favourable than the world average",¹⁷. Thus, if the increase of export by the exporting country is more than the world average, the sign of commodity composition would be positive, whereas, the vice-versa would be the result of the negative sign. "The positive sign would further indicate that the country had concentrated on the export of

commodities whose world markets were growing relatively fast, while the negative sign would indicate that export-country had concentrated in slowly growing commodity markets".¹⁸ The effect of commodity composition can be presented in the following identity form:

$$\frac{\sum_{i=1}^n (r_i X_i - r X_i)}{\sum_{i=1}^n} = \frac{\sum_{i=1}^n r_i X_i - r X}{\sum_{i=1}^n} \dots\dots\dots 2$$

Where, r_i is the percentage increase of the world export of the commodity group i , between two reference years. At the third stage, exports are disaggregated into different commodity classes and markets or groups of markets. The exercise, thus, would show the market distribution effect by comparing the geographical concentration of export of the exporting country in the specific commodity group vis-a-vis the rest of the world. A positive sign of market distribution effect indicates the comparative ability of a country to increase her export of commodity classes in the relatively growing markets, whereas, a negative sign shows the concentration of export for the similar commodity classes in the relatively stagnant markets. The effect of market distribution can thus be defined as:

$$\sum_{i=1}^n \sum_{j=1}^m r_{ij} \times i_j - \sum_{i=1}^n r_{ixi} \dots (3)$$

Where, r_{ij} is the percentage increase of the world export of the commodity group i in the j th market between two points of time. The number of import markets is represented by m (in the present study the number of market considered is $m = 21$).

At the final stage, after decomposing the export performance of a country into the three components viz; (1) world trade effect, (2) commodity composition effect, and (3) market distribution effect attributable to foreign demand conditions, the residual is arrived at and attributed to the country's own competitiveness. The exercise thus involves the computation of the total export of the exporting country in the terminal year minus base year minus the total of (a) world trade effect, (b) commodity composition effect, and (c) market distribution effects. The residual competitiveness is the result of the interacting forces both from supply and demand, price and non-price but largely confined to domestic factors. The positive sign of residual indicates the improved position of export in terms of competitiveness vis-a-vis the rest of the world, whereas the negative sign reflects the deterioration in country's export due to fall in

competitiveness. The competitiveness effect is defined as here under:

$$(X' - X) = \frac{\sum_{i=1}^n}{\sum_{j=1}^m} r_{ij} \times i_j \dots\dots (4)$$

Where, X' and X are the actual export of the exporting country for the terminal as well as the base year respectively. The total number of export products and markets is represented respectively by (n) and (m) . For specific export-commodity, the residual competitiveness is defined as:

$$(X'_i - X_i) = \frac{\sum_{j=1}^m}{\sum_{j=1}^m} r_{ij} \times i_j \dots\dots (5)$$

Where, X'_i and X_i are the export of the specific commodity in the terminal and the base year respectively. (In the present study the number of specific commodity group is 55).

It may be reiterated that the residual term captures the influence of both price and non-price factors. It reflects.... "differential rates of quality improvement and development of new export..... differential rates of improvement in the efficiency of marketing or in the terms of

financing the sale of export goods; and differential changes in the ability for prompt fulfilment of export orders",¹⁹ Besides this, residual term also includes, to some extent, "the degree of discrimination (or preference)" "the import control policies of different countries which is outside of the scope of competitiveness",²⁰ It may be noted that CMS model is an identity which does not have strong theoretical foundations. Also, as CMS model does not have a stochastic basis, it can not be considered useful for future projection for the market shares. Further, it also assumes the relative prices of export products as constant. Despite the above limitations, this model helps in identifying the areas wherein the export of a country may be expanded.

IV. Methodology and Data Base

Thus, applying the CMS model, an attempt has been made to explain the role of competitiveness in export performance of NICs. The analysis, it is hoped, will be useful in reflecting upon the relative role of external vis-a-vis the internal factors on the export performance. Analysis covers the more recent periods, such as, 1969-71-1979-81 and 1979-81 - 1985-87. The study covers traditional as well as non-traditional commodities at 1 digit level of SITC classification. These include: (1) food and live animals (0.0), (2) beverages and tobacco (1.0), (3) crude materials

inedible except fuel (2.0), (4) mineral fuels, lubricants and related materials (3.0), (5) animal, vegetable, oils and fats (4.0) and (6) manufactured goods classified by materials (6.0) under the traditional sector, while (7) chemicals (5.0), (8) machinery and transport equipment (7.0) and (9) miscellaneous manufactured articles (8.0) under the non-traditional sector. This is derived from 2 digit levels of SITC grouping, which in all consists of 55 commodities.

Import-markets considered are 9 from the developed and 12 from the developing world. Countries selected include : U.S.A., Japan, U.K., France, Belgium, Canada, Germany, F.R., Switzerland and Italy from the developed, while India, Pakistan, Singapore, Hongkong, Malaysia, Korea Republic, Indonesia, Sri Lanka, Brazil, Thailand, Greece and Turkey from the developing world. The percentage share of imports in these countries from selected individual NICs has been found to be over 60 per cent in 1985-87. Term 'world export' as defined traditionally is the summation of export from developed and developing countries minus export from each individual NICs. Selection of periods and import-markets is based on the readily availability of information from secondary sources, which include inter-alia include the various volumes of Commodity Trade Statistics²¹, Year Book of International Trade Statistics²², Year book of Industrial Statistics²³, Monthly Statistics of Foreign Trade of India²⁴, etc.

V. Discussion of Results

Table-IV.1 summarises the results of CMS model. During 1969-71 to 1979-81, world trade effect was found to be favourable in all NICs, while the effect of commodity composition in 8 NICs in respect of all commodities vis-a-vis the rest of the world. The effect of commodity composition in India was, however, found to be unfavourable vis-a-vis the rest of the world. In contrast to above, the effect of market distribution was found to be negative in 8 NICs, whereas, there was a positive sign only showed in India vis-a-vis the rest of the world. Competitiveness effect was found to be positive in 6 NICs, being 20 per cent in Brazil, 24.31 in Israel, 73 in Korea Republic, 1491.07 in India and about 39 per cent in Malaysia and Singapore. Conversely, competitiveness effect was found to be negative in 3 NICs, being 35.56 per in Argentina, 42.06 in Pakistan and 2.02 per cent in Turkey.

It tends to suggest that exports in majority of NICs have been concentrated in commodity classes whose growth rate was more favourable than the world average, whereas exports of most of NICs had been concentrated in a relatively stagnant markets vis-a-vis the rest of the world. Thus, elasticity pessimism hypothesis advanced during 50s and 60s in the context of developing countries' exports is still seen valid even in 70s. However, competitiveness through improved

Table-IV.1 : A Summary of Analysis of Export Performance of Selected Newly Industrialising Developing Countries : 1969-71 - 1979-81 and 1979-81 - 1985-87

(Value in '000' US \$)

CMS Components	Country and Period							
	Argentina		Brazil		India		Israel	
	1969-71- 1979-81	1979-81- 1985-87	1969-71- 1979-81	1979-81- 1985-87	1969-71- 1979-81	1979-81- 1985-87	1969-71- 1979-81	1979-81- 1985-87
1. Change in export due to:	5668.62 (100.00)	-238.84 (100.00)	15780.63 (100.00)	8557.36 (100.00)	-528.15 (100.00)	2958.91 (100.00)	2673.04 (100.00)	3251.66 (100.00)
2. World trade effect	3892.73 (68.67)	317.17 (-132.80)	6443.48 (40.83)	1085.35 (12.68)	19694.09 (-3728.88)	738.47 (24.96)	2081.71 (77.88)	415.34 (12.77)
3. Commodity composition effect	13280.53 (234.28)	862.96 (-361.31)	39906.40 (252.88)	6272.90 (73.31)	-28781.84 (5449.56)	6801.58 (229.90)	13863.12 (518.63)	1644.69 (50.58)
4. Market distribution effect	-9488.80 (-167.39)	74.60 (-31.23)	-33714.38 (-213.64)	-2140.90 (-25.02)	16434.71 (-3111.75)	-4646.59 (-157.04)	-13921.66 (-520.82)	576.46 (17.73)
5. Competitiveness effect	-2015.84 (-35.56)	-1492.57 (625.34)	3145.13 (19.93)	3340.01 (39.03)	-7375.11 (1491.07)	65.45 (2.18)	649.87 (24.31)	615.17 (18.92)

Table-IV.1 contd...

Korea Republic		Malaysia	
1969-71- 1979-81	1979-81- 1985-87	1969-71- 1979-81	1979-81- 1985-87
11795.31 (100.00)	24965.17 (100.00)	7385.74 (100.00)	6336.03 (100.00)
3040.86 (25.78)	3437.06 (13.77)	4484.99 (60.72)	121.57 (1.92)
19426.37 (164.70)	-361.91 (-1.45)	25992.36 (351.93)	246.77 (3.89)
-19279.35 (-163.45)	10122.46 (40.55)	-25959.02 (-351.47)	732.39 (11.56)
8607.43 (72.97)	11767.56 (47.13)	2867.41 (38.82)	5235.30 (82.63)

Table-IV.1 contd...

(Value in '000' US \$)

CMS Components	Country and Period					
	Pakistan		Singapore		Turkey	
	1969-71- 1979-81	1979-81- 1985-87	1969-71- 1979-81	1979-81- 1985-87	1969-71- 1979-81	1979-81- 1985-87
1. Change in export due to:	891.44 (100.00)	1077.44 (100.00)	7982.70 (100.00)	9805.35 (100.00)	1517.03 (100.00)	3788.02 (100.00)
2. World trade effect	836.99 (93.88)	93.91 (8.72)	3892.38 (48.76)	1309.68 (13.36)	1649.36 (108.72)	185.22 (4.89)
3. Commodity composi- tion effect	3126.08 (350.68)	502.53 (46.64)	43761.50 (548.20)	719.73 (7.34)	7590.57 (500.36)	460.15 (12.15)
4. Market distribu- tion effect	-2696.65 (-302.50)	4.09 (0.38)	-42762.07 (-535.68)	2353.15 (24.00)	-7692.28 (-507.06)	199.99 (5.28)
5. Competitiveness effect	-374.98 (-42.06)	476.91 (44.26)	3090.89 (38.72)	5422.79 (55.30)	-30.62 (-2.02)	2942.66 (77.68)

Note : Figures in the parenthesis denote percentage to change in exports.

Source : Commodity Trade Statistics, United Nations, Year Book of International Trade Statistics, United Nations, Monthly Statistics of Foreign Trade of India, DGCI & S, Calcutta, Various issues.

internal factors has been found favourable in majority of NICs vis-a-vis the rest of the world.

During 1979-81 to 1985-87, world trade effect was found to be favourable in all commodities in all NICs, while commodity composition effect in 8 NICs vis-a-vis the rest of the world. The effect of commodity composition in Korea Republic was, however, found to be unfavourable vis-a-vis the rest of the world. Similarly, the effect of market distribution was found to be favourable in Argentina, Israel, Korea Republic, Malaysia, Pakistan, Singapore and Turkey, whereas, unfavourable in Brazil and India. A similar was also the case with competitiveness effect, which was favourable in 8 NICs, being 39.03 per cent in Brazil, 2.18 in India, 18.92 in Israel, 47.13 in Korea Republic, 82.63 in Malaysia, 44.26 in Pakistan, 55.30 in Singapore and 77.68 per cent in Turkey. In Argentina however, the effect of competitiveness was found to be unfavourable. It suggests that during 80s, export performance in majority of NICs improved, which was primarily on account of favourable world demand conditions and competitiveness. The improved competitiveness, in turn, was conditioned mainly by the favourable internal supply factors in terms of price and non-price of the exporting country vis-a-vis the rest of the world (Table-IV.1).

V.1 Traditional Sector

We may now examine the result of CMS model across the traditional and non-traditional sectors. This has been recorded in table-IV.2. During 1969-74 - 1979-84, within the traditional sector, word trade and commodity composition effects were found to be favourable in majority of NICs vis-a-vis rest of the world. The commodity composition effect was, however, found to be unfavourable only in India vis-a-vis the rest of the world. On the other hand, market distribution effect was found to be unfavourable in all NICs, except in India, which portrayed the favourable effect of market distribution. It seems to suggest that external factors have been favourable in enhancing the export performance from majority of NICs vis-a-vis the rest of the world.

The effect of competitiveness was found to be positive in 5 NICs (Brazil, Israel, Korea Republic, Malaysia and Singapore), where as, there was negative sign of competitiveness in 4 NICs (Argentina, India, Pakistan and Turkey). The magnitude of competitiveness effect in the traditional sector varied by different NICs. It was favourable by 17.29 per cent in Brazil, 4.31 in Israel, 71.16 in Korea Republic, 21.08 in Malaysia and 37.07 per cent in Singapore, where as, unfavourable by 39.41 per cent in Argentina, 53.30 in Pakistan, 535.36 in India and 20.35 per cent in Turkey. It implied that majority of NICs had

Table-IV.2 : Analysis of Export Performance for Traditional and Non-Traditional Sectors in Selected Newly Industrializing Developing Countries : 1969-71 - 1979-81 and 1979-81 - 1985-87

(Value in '000' US \$)

CMS Components	Country/Period/Sectors			
	Argentina			
	1969-71 - 1979-81		1979-81 - 1985-87	
	Tradition- nal Sector	Non-tra- ditional Sector	Tradition- nal Sector	Non-tra- ditional Sector
1. Change in export due to:	5290.77 (100.00)	377.85 (100.00)	-245.40 (100.00)	6.56 (100.00)
2. World trade effect	3567.63 (67.43)	325.10 (86.04)	221.61 (-90.31)	95.56 (1456.71)
3. Commodity composi- tion effect	11965.15 (226.15)	1315.38 (348.12)	217.29 (-88.55)	645.67 (9842.53)
4. Market distribu- tion effect	-8156.84 (-154.17)	-1331.96 (-352.51)	202.03 (-82.33)	-127.43 (-1942.53)
5. Competitiveness effect	-2085.17 (-39.41)	69.33 (18.35)	-886.33 (361.19)	-607.24 (-9256.71)

Table-IV.2 Contd...

(Value in '000' US \$)

CMS Components	Country/Period/Sectors			
	Brazil			
	1969-71 - 1979-81		1979-81 - 1985-87	
	Tradition- nal Sector	Non-tra- ditional Sector	Tradition- nal Sector	Non-tra- ditional Sector
1. Change in export due to:	14318.92 (100.00)	1461.71 (100.00)	4712.26 (100.00)	3845.10 (100.00)
2. World trade effect	5569.33 (38.89)	874.15 (59.80)	746.27 (15.84)	339.08 (8.82)
3. Commodity composi- tion effect	36677.82 (256.16)	3228.58 (220.88)	2012.14 (42.70)	4260.76 (110.81)
4. Market distribu- tion effect	-30404.42 (-212.34)	-3309.96 (-226.44)	61.51 (1.31)	-2202.41 (-57.27)
5. Competitiveness effect	2476.19 (17.29)	668.94 (45.76)	1892.34 (40.15)	1447.67 (37.64)

Table-IV.2 Contd...

(Value in '000' US \$)

CMS Components	Country/Period/Sectors			
	India			
	1969-71 - 1979-81		1979-81 - 1985-87	
	Tradition- nal Sector	Non-tra- ditional Sector	Tradition- nal Sector	Non-tra- ditional Sector
1. Change in export due to:	-1568.65 (100.00)	1040.50 (100.00)	2019.69 (100.00)	939.22 (100.00)
2. World trade effect	19168.37 (-1221.97)	525.72 (50.53)	257.35 (12.74)	481.12 (51.23)
3. Commodity composi- tion effect	-30234.50 (1927.42)	1452.66 (139.61)	5494.48 (272.05)	1307.10 (139.17)
4. Market distribu- tion effect	17895.25 (-1140.81)	-1460.54 (-140.37)	-4166.01 (-206.27)	-480.58 (-51.17)
5. Competitiveness effect	-8397.77 (535.36)	522.66 (50.23)	433.87 (21.48)	-368.42 (-39.23)

Table-IV.2 Contd...

(Value in '000' US \$)

CMS Components	Country/Period/Sectors			
	Israel			
	1969-71 - 1979-81		1979-81 - 1985-87	
	Tradition- nal Sector	Non-tra- ditional Sector	Tradition- nal Sector	Non-tra- ditional Sector
1. Change in export due to:	1573.35 (100.00)	1099.69 (100.00)	1997.59 (100.00)	1254.07 (100.00)
2. World trade effect	1541.66 (97.98)	540.05 (49.11)	72.47 (3.63)	342.87 (27.34)
3. Commodity composi- tion effect	6370.32 (404.89)	7492.80 (681.36)	358.34 (17.94)	1286.35 (102.58)
4. Market distribu- tion effect	-6406.44 (-407.18)	-7515.22 (-683.39)	567.87 (28.43)	8.59 (0.68)
5. Competitiveness effect	67.81 (4.31)	582.06 (52.92)	998.91 (50.00)	-383.74 (-30.60)

Table-IV.2 contd...

(Value in '000' US \$)

CMS Components	Country/Period/Sectors			
	Korea Republic			
	1969-71 - 1979-81		1979-81 - 1985-87	
	Tradition- nal Sector	Non-tra- ditional Sector	Tradition- nal Sector	Non-tra- ditional Sector
1. Change in export due to:	4172.69 (100.00)	7622.62 (100.00)	5417.85 (100.00)	19547.32 (100.00)
2. World trade effect	1016.22 (24.35)	2024.64 (26.56)	110.37 (2.04)	3326.69 (17.02)
3. Commodity composi- tion effect	15351.18 (367.90)	4075.19 (53.46)	680.06 (12.55)	-1041.97 (-5.33)
4. Market distribu- tion effect	-15163.86 (-363.41)	-4115.49 (-53.99)	1587.32 (29.30)	8535.14 (43.66)
5. Competitiveness effect	2969.15 (71.16)	5638.28 (73.97)	3040.10 (56.11)	8727.46 (44.65)

Table-IV.2 contd....

(Value in '000' US \$)

CMS Components	Country/Period/Sectors			
	Malaysia			
	1969-71 - 1979-81		1979-81 - 1985-87	
	Traditio- nal Sector	Non-tra- ditional Sector	Traditio- nal Sector	Non-tra- ditional Sector
1. Change in export due to:	5065.13 (100.00)	2320.61 (100.00)	4722.48 (100.00)	1613.55 (100.00)
2. World trade effect	3957.95 (78.14)	527.04 (22.71)	-274.26 (-5.81)	395.83 (24.53)
3. Commodity composi- tion effect	24612.70 (485.93)	1379.66 (59.46)	-187.99 (-3.98)	434.76 (26.94)
4. Market distribu- tion effect	-24573.47 (-485.15)	-1385.55 (-59.71)	518.03 (10.97)	214.36 (13.28)
5. Competitiveness effect	1067.95 (21.08)	1799.46 (77.54)	4666.70 (98.82)	568.60 (35.25)

Table-IV.2 contd....

(Value in '000' US \$)

CMS Components	Country/Period/Sectors			
	Pakistan			
	1969-71 - 1979-81		1979-81 - 1985-87	
	Traditio- nal Sector	Non-tra- ditional Sector	Traditio- nal Sector	Non-tra- ditional Sector
1. Change in export due to:	774.92 (100.00)	116.52 (100.00)	686.19 (100.00)	391.25 (100.00)
2. World trade effect	758.23 (97.84)	78.76 (67.60)	22.48 (3.28)	71.43 (18.26)
3. Commodity composi- tion effect	3116.73 (402.20)	9.35 (8.02)	145.83 (21.25)	356.70 (91.17)
4. Market distribu- tion effect	-2686.99 (-346.74)	-9.66 (-8.29)	268.64 (39.15)	-264.55 (-67.62)
5. Competitiveness effect	-413.05 (-53.30)	38.07 (32.67)	249.24 (36.32)	227.67 (58.19)

Table-IV.2 contd...

(Value in '000' US \$)

CMS Components	Country/Period/Sectors			
	Singapore			
	1969-71 - 1979-81		1979-81 - 1985-87	
	Traditio- nal Sector	Non-tra- ditional Sector	Traditio- nal Sector	Non-tra- ditional Sector
1. Change in export due to:	5094.40 (100.00)	2888.30 (100.00)	1406.15 (100.00)	8399.20 (100.00)
2. World trade effect	2239.07 (43.95)	1653.31 (57.24)	144.77 (10.30)	1164.91 (13.87)
3. Commodity composi- tion effect	41249.06 (809.69)	2512.44 (86.99)	54.24 (3.86)	665.49 (7.92)
4. Market distribu- tion effect	-40282.09 (-790.71)	-2479.98 (-85.86)	267.62 (19.03)	2085.53 (24.83)
5. Competitiveness effect	1888.36 (37.07)	1202.53 (41.63)	939.52 (66.81)	4483.27 (53.38)

Table-IV.2 contd...

(Value in '000' US \$)

CMS Components	Country/Period/Sectors			
	Turkey			
	1969-71 - 1979-81		1979-81 - 1985-87	
	Traditio- nal Sector	Non-tra- ditional Sector	Traditio- nal Sector	Non-tra- ditional Sector
1. Change in export due to:	1224.19 (100.00)	292.84 (100.00)	1972.67 (100.00)	1815.35 (100.00)
2. World trade effect	1573.39 (128.53)	75.97 (25.94)	61.99 (3.14)	123.23 (6.79)
3. Commodity composi- tion effect	6615.21 (540.37)	975.36 (333.07)	330.70 (16.76)	129.45 (7.13)
4. Market distribu- tion effect	-6715.24 (-548.55)	-977.04 (-333.64)	66.49 (3.37)	133.50 (7.35)
5. Competitiveness effect	-249.17 (-20.35)	218.55 (74.63)	1513.49 (76.73)	1429.17 (78.73)

Note : Figures in the parenthesis denote percentage to change in export.

Source : Commodity Trade Statistics, United Nations, Year Book of International Trade Statistics, United Nations, Monthly Statistics of Foreign Trade of India, DGCI & S, Calcutta, Various issues.

enhanced their export performance and the large part of it was accountable to the role of internal production structure and trade regime through the improved competitiveness in terms of price and non-price factors.

Over 1977-81 - 1985-87, world trade and commodity composition effects were found to be positive in all NICs except Malaysia, in which negative sign was observed vis-a-vis the rest of the world. Similarly, market distribution effect was found to be favourable in almost all NICs, except in India, which, however, portrayed a negative sign vis-a-vis the rest of the world. Similarly, competitiveness effect turned out to be positive in most of NICs except in Argentina, which portrayed a negative sign vis-a-vis the rest of the world. Competitiveness effect, however, varied in different NICs, being favourable by 98.82 per cent in Malaysia, 76.73 in Turkey, 66.81 in Singapore, 56.11 in Korea Republic, 50.00 in Israel, 40.15 in Brazil, 36.32 in Pakistan and 21.48 per cent in India. It suggests that both the world demand and internal supply conditions have exerted their favourable influence in enhancing the export performance of traditional commodities from majority of NICs vis-a-vis rest of the world.

V.2 Non-Traditional Sector

During 1969-71 - 1979-81, within non-traditional sector, world trade and commodity composition effects were found to be favourable in all NICs, where as, market distribution effect was found to be unfavourable vis-a-vis the rest of the world. The competitiveness effect was found to be favourable in all NICs as compared with the rest of the world.

During 1979-81 - 1985-87, world trade effect and commodity composition effect (excepting Korea Republic)* were found to be favourable in all NICs vis-a-vis the rest of the world. The effect of market distribution was found to be favourable in 5 NICs (Israel, Korea Republic, Malaysia, Singapore and Turkey), where as, there was unfavourable effect of market distribution in 4 NICs (Argentina, Brazil, India and Pakistan). The effect of competitiveness was found to be favourable in 6, out of 9 NICs, whereas, in 3 NICs (Argentina, India and Israel) the unfavourable competitiveness effect was observed. The intensity of competitiveness effect, however, varied across the different NICs.. It was favourable by 78.73 per cent in Turkey, 58.19 in Pakistan, 53.58 in Singapore, 44.65 in Korea Republic, 37.34 in Brazil and 35.25 per cent in Malaysia. In sharp contrast to above, there appeared unfavourable competitiveness effect by 9256.71 per cent in Argentina, 39.23 per cent in India and 30.60 per cent in Israel (Table-IV.2).

Although export performance in aggregate has had the benefit of improved competitiveness in majority of NICs, a detailed look into the effects of different components at the level of product breakdown may be necessary to make an appraisal of competitiveness and hence the efficacy of internal factors and domestic policies.

VI. External Factors

VI.1 First Period (1969-71 - 1979-81)

We may now discuss the role of external factors decomposed into world trade effect, commodity composition effect and market distribution effects on export performance (Appendix tables-IV.1.1 to IV.1.9). Among the traditional sector, during 1969-71 - 1979-81, world trade effect and commodity composition effects were found to be favourable in all NICs, except in India, where commodity composition effect was unfavourable in food and live animals (0.0). The effect of market distribution was, however, found to be unfavourable in majority of NICs in almost all traditional product groups. Exceptions were, however, only food and live animals (0.0) in India and crude materials inedibles except fuels (2.0) in Pakistan, in which it turned out to be favourable.

A similar pattern, by and large, had also followed even in non-traditional product groups. World trade and commodity

composition effects were found to be favourable in majority of NICs in machinery and transport equipment (7.0) and miscellaneous manufactured articles (8.0). In sharp contrast to above, the sign of market distribution effect was found to be negative in almost all NICs in (1) machinery and transport equipment (7.0); (2) chemicals (5.0); and (3) miscellaneous manufactured articles (8.0).

There were, however, interesting variations across the commodity groups and NICs. For instance; World trade effect was favourable in food and live animals (0.0) in all NICs. A similar was also the case in mineral fuel, lubricants and related materials (3.0) in 7 NICs (Argentina, Brazil, India, Malaysia, Pakistan, Singapore and Turkey); in beverages and tobacco (1.0) in 4 NICs (Argentina, Brazil, India and Singapore); and in crude materials in edibles except fuels (2.0) only in Brazil. On the other hand, world trade effect was found to be unfavourable in remaining traditional product groups and NICs vis-a-vis the rest of the world.

With regard to commodity composition effect, it was favourable in mineral fuels, lubricants and related materials (3.0) in 7 NICs (Argentina, Brazil, India, Malaysia, Pakistan, Singapore and Turkey); in food and live animals (0.0) in 6 NICs (Brazil, Israel, Korea Republic, Pakistan, Singapore and Turkey); in animal vegetable oils and fats (4.0); in 5 NICs (Brazil, Israel, Korea Republic, Pakistan and Turkey); in beverages and tobacco (1.0) and crude materials

inedible except fuels (2.0); in 3 NICs (Argentina Brazil and Singapore); and in crude materials, inedible except fuels (2.0) in Brazil. In remaining NICs and traditional commodity groups, the effect of commodity composition turned out to be either negative or non-existent.

As far the market distribution effect, it was found to be positive in crude materials inedibles except fuels (2.0) and in manufacturing goods classified by materials (6.0) in all NICs; in beverages and tobacco (1.0) in 6 NICs (India, Israel, Korea Republic, Malaysia, Pakistan and Turkey); in food and live animals (0.0) in 4 NICs (Argentina, Brazil, India and Malaysia); and in animal, vegetable, oils and fats (4.0) in 5 NICs (Argentina, India, Malaysia, Singapore and Turkey). In remaining products and NICs, the effect of market distribution was, however, found to be unfavourable vis-a-vis the rest of the world.

Within the non-traditional sector, world trade effect and commodity composition effects were found to be positive in almost all NICs and product groups excepting in miscellaneous manufactured articles (8.0). In this case, the effect of commodity composition was found to be unfavourable in 2 NICs (Korea Republic and Singapore). The effect of market distribution, however, varied by products and NICs. For instance, it portrayed positive sign in chemicals (5.0) in 7 NICs (Argentina, Israel, Korea Republic, Malaysia, Pakistan, Singapore and Turkey); in machinery and transport equipment (7.0), in 6 NICs (Brazil, Israel, Korea Republic,

Malaysia, Singapore and Turkey); and in miscellaneous manufactured articles (8.0), in 3 NICs (Korea Republic, Malaysia and Singapore). In remaining NICs, the effect of market distribution was found to be unfavourable vis-a-vis the rest of the world.

VI.2 Second Period (1979-81 - 1985-87)

We may discuss world trade, commodity composition and the market distribution effects, during 1979-81 to 1985-87. World trade effect was found to be positive in all NICs in majority of traditional product groups. However, in animal vegetable oils and fats (4.0), there was a unfavourable world trade effect in all NICs vis-a-vis the rest of the world. With regard to commodity composition effect, it was found to be positive in food and live animals (0.0), beverages and tobacco (1.0), crude materials (2.0), minerals (3.0) and animal vegetable oils and fats (4.0) in Brazil. The similar was also the case in food and live animals (0.0), mineral fuels, lubricants and related materials (3.0) and animal vegetable oils and fats (4.0) in Pakistan and Turkey; in food and live animals (0.0) and animal vegetable oils and fats (4.0) in Israel and Korea Republic in beverages and tobacco (1.0) and mineral fuels, lubricants and related materials (3.0) in Argentina; and in mineral fuels, lubricants and related materials (3.0) in India and Malaysia. Similarly, commodity composition effect was found to be favourable in

food and live animals (0.0), beverages and tobacco (1.0), mineral fuels, lubricants and related materials (3.0) and animal vegetable, oils and fats (4.0) in Singapore. However, in remaining traditional products and NICs the commodity composition effect was found to be either negative or non-existent.

The market distribution effect was found to be favourable in manufactured goods classified by materials (6.0) and crude materials inedible except fuels (2.0) in all NICs vis-a-vis the rest of the world. A similar was also the case in food and live animals (0.0) in Argentina, Brazil, India, Malaysia, Pakistan and Turkey; in beverages and tobacco (1.0) in India, Israel, Korea Republic, Malaysia, Pakistan and Turkey; and in animal vegetable oils and fats (4.0) in Argentina, India, Israel, Malaysia, Singapore and Turkey. In remaining traditional product groups and NICs the market distribution effect was found to be unfavourable vis-a-vis the rest of the world. It is notable that market distribution effect was found to be unfavourable in mineral fuels, lubricants and related materials (3.0) in all NICs vis-a-vis the rest of the world.

With in the non-traditional sector, the world trade effect was found to be favourable in majority of product groups and NICs vis-a-vis the rest of the world. A much similar was also the case about the effect of commodity composition. It, was found to be favourable in most of products groups and NICs. However, exceptions were chemicals

in Korea Republic, Malaysia, Pakistan and Turkey; machinery and transport equipment (7.0) in Turkey; and miscellaneous manufactured articles (8.0) in Korea Republic and Singapore. As far the market distribution effect, it was found to be in almost all non-traditional product groups and NICs. Exceptions were, however, chemicals (5.0) in Brazil and India;1 and machinery and transport equipment (7.0) in Argentina and India (Appendix tables-IV.1.1 to IV.1.9).

VII. Internal Factors

We may now discuss the role of internal factors on export performance. This is recorded in Appendix-tables-IV.1.1 to IV.1.9 for selected newly industrializing developing countries, such as, Argentina in Appendix-table-(IV.1.1), Brazil in (IV.1.2), India in (IV.1.3), Israel in (IV.1.4), Korea Republic in (IV.1.5), Malaysia in (IV.1.6), Pakistan in (IV.1.7), Singapore in (IV.1.8) and Turkey in (IV.1.9).

VII.1 First Period (1969-71 - 1979-81)

Among the traditional sector, during 1969-71 - 1979-81, the competitiveness effect was found to be favourable in food and live animals (0.0) in Brazil, Korea Republic, Malaysia and Singapore; in beverages and tobacco (1.0) in Argentina, Brazil, Korea Republic, Malaysia and Singapore; in crude materials, inedible except fuels (2.0) in Argentina, Brazil,

Israel and Korea Republic; in mineral fuels, lubricants and related materials (3.0) in Argentina, Brazil, Korea Republic, Malaysia, Pakistan, Singapore and Turkey; in animal vegetable oil and fats (4.0) in Brazil, India, Korea Republic, Malaysia and Turkey; and in manufactured goods classified by materials (6.0) in Argentina, Brazil, Israel, Korea Republic and Singapore. In remaining NICs the effect of competitiveness was found to be unfavourable vis-a-vis the rest of the world.

Within the non-traditional sector, effect of competitiveness in machinery and transport equipment (7.0) and that in chemicals (5.0) was found to be favourable in Argentina, Brazil, Israel, Korea Republic, Singapore and Turkey. A similar was also the case in miscellaneous manufactured articles (8.0) in India, Israel, Korea Republic, Malaysia, Pakistan, Singapore and Turkey. In remaining NICs, the competitiveness effect turned out to be unfavourable vis-a-vis the rest of the world.

VII.2 Second Period (1979-81 - 1985-87)

More or less, a similar pattern has also been revealed during 1979-81 to 1985-87. Among the traditional sector, there was a favourable competitiveness in food and live animals (0.0) in Israel, Korea Republic, Malaysia, Pakistan, Singapore and Turkey; in beverages and tobacco (1.0) in Malaysia and Singapore; in mineral fuels, lubricants and related materials (3.0) in Brazil, India, Korea Republic,

Malaysia, Pakistan Singapore and Turkey; in animal vegetable oils and fats (4.0) in Argentina, Brazil, Israel, Malaysia and Pakistan; and in manufactured goods classified by materials (6.0) in all NICs. The competitiveness effect is remaining NICs was found to be unfavourable vis-a-vis the rest of the world.

A similar was also the case in variety of products within the non-traditional sector. For example, as compared with the rest of the world in chemicals (5.0), Korea Republic, Malaysia, Pakistan, Singapore and Turkey portrayed the favourable effect of competitiveness. The finding of the same nature has also been reinforced in machinery and transport equipment (7.0) in Brazil, Korea Republic, Singapore and Turkey and that in miscellaneous manufactured articles (8.0) in Argentina, Brazil, Korea Republic, Malaysia, Pakistan and Turkey. The effect of competitiveness has however, been found to be unfavourable in remaining NICs vis-a-vis rest of the world.

A comparison of the effect of competitiveness over time reveals interesting conclusions. With in the traditional sector, it improved in food and live animals (0.0), crude materials, inedible except fuels (2.0), mineral fuels, lubricants and related materials (3.0) and in manufactured goods classified by materials (6.), whereas, deteriorated only in beverages and tobacco (1.0). It was, however, unaltered in animal vegetable oils and fats (4.0). Contrary to the above, competitiveness effect deteriorated in non-

traditional product categories as number of NICs with favourable competitiveness effect reduced from 6 to 5 in chemicals (5.0) from 6 to 4 in machinery and transport equipment (7.0) and from 7 to 6 in miscellaneous manufactured articles in the second over the first period.

In order to prove it further, additional information has also been provided in table-IV.3 on competitiveness effect by traditional and non-traditional sectors on the basis of

Table-IV.3 : Change in Competitiveness Effect By Traditional and Non-Traditional Sectors : 1969-71 - 1979-81 to 1979-81 - 1985-87

Sectors	Competitiveness effect . and period		
	1969-71- 1979-81	1979-81- 1985-87	% Change
A. Traditional Sector	-2575.70	12847.84	-398.81
B. Non-Traditional Sector	10739.88	15524.44	44.55
Total	8164.18	28372.28	247.52

Source: Commodity Trade Statistics, United Nations, Year Book of International Trade Statistics, United Nations, Monthly Statistics of Foreign Trade of India DGCI & S, Calcutta.

recorded in from table-IV.2. It was found that change in export to the competitiveness effect in traditional sector, turned out to be positive by US \$ 12847.84 thousand in 1979-81 - 1985-87 as against the negative figures of US \$ 2575.70 thousand in 1969-71 - 1979-81. As compared to this, the gain in competitiveness less significant in the non-traditional sector, which improved to US \$ 15524.24 thousand in 1979-81 - 1985-87 from 1US \$ 10739.88 thousand in 1969-71 - 1979-81. Thus, export performance on account of competitiveness effect was found to be more significant in traditional than that in non-traditional sector. Since present present analysis at one digit level of SITC classification is likely to involve an aggregation bias, it would be useful to analyse the nature of competitiveness at greater level of product disaggregation.

VIII. Role of Internal Factors Explaining Export Performance at Two Digit Levels of SITC Groupings : First Period, (1969-71 - 1979-81)

Appendix table-IV.2 records the nature of competitiveness of exports at two digit level of SITC groupings over the period 1969-71 to 1979-81 and 1979-81 - 1985-87. Table-IV.4 and IV.5 summarises the results recorded in Appendix table IV.2. Among the traditional sector, majority of products portrayed the negative competitiveness in Argentina, India and Pakistan, where as, in Brazil, Israel, Malaysia, Korea Republic, Singapore and Turkey, positive competitiveness was recorded. In Argentina, India

Table-IV.4 : Positive and Negative Competitiveness Effect in Traditional and Non-Traditional Sectors in Selected Newly Industrializing Developing Countries: 1967-71 - 1979-81

(Value in '000' US \$)

Sl. No. Newly industrializing developing countries	Traditional Sector				Non-Traditional Sector			
	Positive competitiveness effect		Negative competitiveness effect		Positive competitiveness effect		Negative competitiveness effect	
	Number of Products	Values	Number of Products	Values	Number of Products	Values	Number of Products	Values
1. Argentina	10	1008.90	21	-3094.07	10	188.30	7	-118.70
2. Brazil	31	2476.19	-	-	11	1318.07	7	-649.40
3. India	2	1.83	29	-8399.60	9	536.46	8	-13.80
4. Israel	14	550.72	13	-482.91	15	662.95	2	-80.89
5. Korea Republic	25	2569.15	-	-	13	7066.35	4	-1428.07
6. Malaysia	13	2355.41	18	-1287.46	7	2238.16	10	-438.70
7. Pakistan	1	54.50	16	-467.55	4	43.72	6	-5.65
8. Singapore	23	2116.07	10	-227.71	14	1386.03	2	-183.50
9. Turkey	12	36.48	17	-285.65	9	572.14	2	-353.59
Total	15*	11569.25	18*	-14244.95	10*	14012.18	5*	-3272.30

Note : The number of products and values of competitiveness have been worked out from Appendix-IV.2. Total shows the average number of products from all NICs.

Source : Commodity Trade Statistics, United Nations, Year Book of International Trade Statistics, United Nations, Monthly Statistics of Foreign Trade of India, DGCI & S, Calcutta, Various issues.

and Pakistan, traditional products with negative competitiveness were found to be larger, being, 21, 29 and 16 than the products with positive competitiveness effect, being 10, 2 and 1. On the other hand, traditional products showing positive competitiveness effect were found to be larger in Brazil, Korea Republic, Singapore and Israel, being 31, 25, 23 and 14 vis-a-vis the products with negative competitiveness effect, being null in Brazil and Korea Republic, 10 in Singapore and 13 in Israel (Table-IV.4). Thus, change in export to the favourable competitiveness effect has generally been underlined in variety of products under the traditional sector in majority of NICs vis-a-vis the rest of the world.

The effect of competitiveness with in the non-traditional sector was generally found to be favourable vis-a-vis the rest of the world. However, Malaysia and Pakistan portrayed the negative competitiveness effect. For example, number of products with favourable competitiveness effect in Argentina were 10 than that of 7 with unfavourable competitiveness effect. The corresponding numbers in Brazil were 11 as against 7; in India 9 as compared to 8; in Israel 15 as against 2; in Korea Republic 13 as compared to 4; in Singapore 14 as compared to 2; and in Turkey 9 as against 2. Thus, general findings tend to suggest that among the non-traditional sector the majority of products in the majority of NICs, portrayed the favourable competitiveness effect vis-a-vis the rest of the world (Table-IV.4).

VIII.1 Second Period (1979-81 - 1985-87)

Over the period 1979-81 to 1985-87, change in export to the favourable competitiveness effect was found to be relatively more significant than that to the unfavourable competitiveness effect. For example, number of products with positive sign of competitiveness was more in traditional sector, being 17 in Brazil, 17 in Israel, 23 in Korea Republic, 24 in Malaysia and 20 in Singapore as compared to that with unfavourable competitiveness effect, being 16, 13, 11, 11 and 15, respectively. The findings thus suggest that change in export to the favourable competitiveness effect was more spectacular in majority of traditional sector products and NICs vis-a-vis the rest of the world (Table-IV.5).

A similar pattern, more or less, was also found true in case of non-traditional products as well. For instance, number of products with favourable competitiveness was found to be more significant, being 15 in Brazil, 15 in Israel, 21 in Korea Republic, 20 in Malaysia, 16 in Pakistan, 18 in Singapore and 16 in Turkey vis-a-vis the products with unfavourable competitiveness, being 11, 12, 5, 6, 9, 8 and 7 respectively. In Argentina and India, however, change in export to the negative competitiveness effect was found to be more significant than that to the positive competitiveness effect. Thus, change in export in non-traditional sector was relatively more significant on account of favourable

Table IV.5 : Positive and Negative Competitiveness Effect in Traditional and Non-Traditional Sectors in Selected Newly Industrializing Developing Countries : 1979-81 - 1985-87

(Value in '000' US \$)

Sl. No. Newly industrializing developing countries	Traditional Sector				Non-Traditional Sector			
	Positive competitiveness effect		Negative competitiveness effect		Positive competitiveness effect		Negative competitiveness effect	
	Number of Products	Values	Number of Products	Values	Number of Products	Values	Number of Products	Values
1. Argentina	15	262.93	21	-1149.26	9	58.25	18	-665.49
2. Brazil	17	2730.69	16	-838.35	15	2552.16	11	-1104.49
3. India	16	2508.79	17	-2074.92	8	84.28	18	-452.70
4. Israel	17	1121.57	13	-122.66	15	3533.37	12	-3917.11
5. Korea Republic	23	5676.19	11	-2636.09	21	9675.23	5	-947.77
6. Malaysia	24	11218.59	11	-6551.89	20	866.32	6	-297.72
7. Pakistan	12	339.95	13	-90.71	16	238.31	9	-10.64
8. Singapore	20	2327.25	15	-1387.73	18	4891.50	8	-408.23
9. Turkey	14	4747.63	18	-3234.14	16	1443.44	7	-14.27
TOTAL	18*	30933.59	15*	-18085.76	15*	23342.86	10*	-7818.42

Note : The number of products and values of competitiveness have been worked out from Appendix-IV.2. Total shows the average number of products from all NICs.

Source : Commodity Trade Statistics, United Nations, Year Book of International Trade Statistics, United Nations, Monthly Statistics of Foreign Trade of India, DGCI & S, Calcutta, Various issues.

competitiveness than to that due to unfavourable competitiveness effect in majority of NICs vis-a-vis the rest of the world (Table-IV.5).

Table-IV.6 records the change in export to the effect of competitiveness over time across the sectors. Among the traditional sector, number of products as well as export values with favourable competitiveness has been found to be greater than to those with the effect of negative competitiveness. To supplement this, we have also worked out the percentage change in recent-products and values over time. Within the traditional sector, change in export to the positive competitiveness shot up by 20 per cent in number of products and by 167 per cent in terms of values. Contrary to this, the corresponding figures to the negative competitiveness were found to be lower, being 20 per cent and about 27 per cent. It appears that the positive competitiveness effect in the traditional sector has outweighed the negative competitiveness effect.

Among the non-traditional sector, change in export to the positive competitiveness effect went up by 50 per cent in number and 66.59 per cent in terms of values. However, corresponding figures owing to negative competitiveness effect increased to 100 per cent and 138.93 per cent. Thus, products in terms of numbers and values with negative competitiveness effect had seemingly outstripped the effect generated through the positive competitiveness effect (Table-

Table-IV.6 : Change in Positive and Negative Competitiveness Effect in Traditional and Non-Traditional Sectors in Selected Newly Industrializing Developing Countries : 1969-71 - 1979-81 and 1979-81 - 1985-87

(Value in '000' US \$)

Sl. Period No.	Traditional Sector				Non-Traditional Sector			
	Positive competi- tiveness effect		Negative competi- tiveness effect		Positive competi- tiveness effect		Negative competi- tiveness effect	
	Number of Products	Values	Number of Products	Values	Number of Products	Values	Number of Products	Values
1969-71 - 1979-81	15	11569.25	18	-14244.95	10	14012.18	5	-3272.30
1979-81 - 1985-87	18	30933.59	15	-18085.76	15	23342.86	10	-7618.42
Per cent change (1979-81 - 1985-87 over 1969-71 - 1979-81)	20.00	167.38	20.00	26.96	50	66.59	100.00	138.93

Note : The number of products and values of competitiveness have been worked out from Appendix-IV.2.

Source : Commodity Trade Statistics, United Nations, Year Book of International Trade Statistics, United Nations, Monthly Statistics of Foreign Trade of India, DGCI & S, Calcutta, Various issues.

IV.6). Therefore, favourable competitiveness effect in traditional sector products, whereas, negative competitiveness effect in non-traditional sector products in selected NICs vis-a-vis rest of the world have been underlined by this part of analytical exercise during the period under review.

IX. Determinants of Export Competitiveness

Behaviour of competitiveness, as argued earlier, is an outcome of numerous factors from price and non-price and internal supply and that on external demand but are largely influenced by the internal supply conditions of the export-country. These constitute cost conditions of production, price of the product, level of home demand, marketing strategy and the e and production policies. On external demand, main factors include: quality of products, purchasing power and taste pattern, public relations, production and trade policies of the import-countries. In real practice, the combined effect of both the factors determines the competitiveness of export-commodities. It has, however, not been possible for us to examine the impact of all factors per se on observed competitiveness of export, yet we hope that not much is missed in terms of ideas.

IX.1 Cost Competitiveness

Appendix-IV.3 examines the cost structure* of export

* Ideally speaking, the examination of cost structure should take into account of labour, capital and material cost. However, on account of non-availability of information, the cost structure has only been examined in terms of labour and material cost.

commodities at one digit level of SITC classification in 8 NICs for the average of 1969-71, 1979-81 and 1985-87 vis-a-vis the rest of the world. Such analysis has, however, not been carried out for Pakistan due to nonavailability of required information from the published sources. Cost structure indicates the product-wise employment of worker (i.e., number of workers to produce one dollar worth of output) and the use of material cost (i.e., the requirement of material cost to produce one dollar worth of output). Requirement of labour and material to produce one dollar worth of output in export-country lower than the rest of the world would thus indicate the improvement in cost competitiveness and vice-versa.

Appendix-IV.4 compares the nature of competitiveness with labour and material requirement. During the period 1969-71 - 1979-81, the result presents a mix picture. The favourable competitiveness observed in beverages and tobacco (1.0) in Argentina; in all product groups, except animal vegetable oils and fats (4.0) in Brazil; in crude materials (2.0), chemicals (5.0), manufactured goods classified by materials (6.0), machinery and transport equipment (7.0) and miscellaneous manufactured articles (8.0) in Israel; and in mineral fuels, lubricants and related materials (3.0) in Malaysia and Singapore was largely explained by the labour cost advantages, while that in food and live animals (0.0), beverages and tobacco (1.0), and chemicals (5.0) in Korea Republic; and in mineral fuels, lubricants and related

materials (3.0) and chemicals (5.0) in Turkey by material cost advantage.

However, unfavourable competitiveness observed in food and live animals (0.0), beverages and tobacco (1.0), chemicals (5.0) and manufactured goods classified by materials (6.0) in India; in crude materials inedible except fuels (2.0) and animal vegetable oils and fats (4.0) in Singapore; and in food and live animals (0.0), beverages and tobacco (1.0), crude materials (2.0), chemicals (5.0) and manufactured goods classified by materials (6.0) in Turkey was found largely accountable to the labour cost disadvantages, while that in crude materials (2.0) and manufactured goods classified by materials (6.0) in Malaysia to the material cost disadvantages.

During 1979-81 - 1985-87, favourable competitiveness observed in mineral fuels, lubricants and related materials (3.0), animal vegetable oils and fats (4.0), manufactured goods classified by materials (6.0), machinery and transport equipment (7.0) and miscellaneous manufactured articles (8.0) in Brazil; in food and live animals (0.0), animal vegetable oils and fats (4.0) and in manufactured goods classified by materials (6.0) in Israel; in crude materials, inedible except fuels (2.0), minerals (3.0) and manufactured goods classified by materials (6.0) in Korea Republic; in food and live animals (0.0), beverages and tobacco (1.0) and mineral fuels, lubricants and related materials (3.0) in Malaysia;

and in food and live animals (0.0), beverages and tobacco (1.0) crude materials (2.0) and mineral fuels (3.0) in Singapore was attributable, to a large extent by the labour cost advantages, while in animal vegetable oils and fats (4.0) and manufactured goods classified by materials (6.0) in Brazil; mineral fuels, lubricants and related materials (3.0) in India; and in chemicals (5.0), and machinery and transport equipment (7.0) in Turkey to the material cost advantages.

On the other hand, unfavourable competitiveness observed in food and live animals (0.0), animal vegetable oils and fats (4.0), chemicals (5.0), machinery and transport equipment (7.0) and miscellaneous manufactured articles (8.0) in India; in animal vegetable oils and fats (4.0) in Korea Republic; in machinery and transport equipment (7.0) in Malaysia; in animal vegetable oils and fats (4.0) and miscellaneous manufactured articles (8.0) in Singapore; and in beverages and tobacco (1.0), crude materials (2.0) and animal vegetable oils and fats (4.0) in Turkey was due mainly to the disadvantages arising on account of labour cost, while that in food and live animals (0.0), beverages and tobacco (1.0), animal vegetable, oils and fats (4.0) and miscellaneous manufactured articles (8.0) in India; in miscellaneous manufactured articles (8.0) in Israel; in animal vegetables, oils and fats (4.0) in Korea Republic and Singapore; and in crude materials inedible except fuels (2.0) and animal vegetable oils and fats (4.0) in Turkey to the material cost disadvantages (Appendix-IV.4).

Thus, it is evident that favourable competitiveness observed in numerous products has mainly been the outcome of labour cost advantage, while in others to the material cost advantages. Additional evidences provided in (Table IV.7) also suggest that in 16 products during 1969-71 - 1979-81, while 18 products during 1979-81 - 1985-87 with favourable competitiveness have mainly been due to labour cost advantages. Material cost advantage comes only second in order of importance, which seemingly has explained the favourable competitiveness of 11 products during 1969-1 - 1979-81 and that of 13 products during 1979-81 - 1985-87. Thus, advantages on account of labour cost have emerged as principal explanatory factor for the favourable export competitiveness in majority of products in selected NICs (Table-IV.7).

IX.2 Price Competitiveness

Price of a product also determines the competitiveness. So as to examine the role of price on competitiveness, methodology suggested by Murty and Shastri²⁵ has been followed, which is described as hereunder :

$$\frac{EPNS}{EPWS} = 100$$

Table-IV.7: Competitiveness vis-a-vis the Cost Structure in Newly Industrializing Developing Countries : 1969-71 - 1979-81 and 1979-81 - 1985-87

Newly industrializing developing countries	1969-71 - 1979-81			
	Products with favourable competitiveness effect due to:		Products with unfavourable competitiveness effect due to:	
	Labour cost advantages (No.)	Material cost advantage (No.)	Labour cost disadvantages (No)	Material cost disadvantages (No.)
Argentina	1	-	-	-
Brazil	8	2	-	-
India	-	-	4	5
Israel	5	3	-	-
Korea Republic	-	3	-	-
Malaysia	1	1	3	2
Singapore	1	1	2	2
Turkey	-	2	4	3
Overall	16	12	13	12

Table-IV.7 Contd..

Newly industrializing developing countries	1979-81 - 1985-87			
	Products with favourable competitiveness effect due to:		Products with unfavourable competitiveness effect due to:	
	Labour cost advantages (No.)	Material cost advantage (No.)	Labour cost disadvanta- ges (No.)	Material cost disadvantages (No.)
Argentina	-	-	-	-
Brazil	5	2	-	-
India	-	1	5	4
Israel	3	-	-	1
Korea Republic	3	2	1	1
Malaysia	3	3	1	-
Singapore	4	2	2	1
Turkey	-	3	3	2
Overall	18	13	12	9

Source : Commodity Trade Statistics, United Nations, Year Book of International Trade Statistics, United Nations, Year Book of Industrial Statistics, United Nations, Monthly Statistics of Foreign Trade of India, DGCI & S, Calcutta, Various Issues.

Where EPNS and EPWS are respectively the export price of export-country (N) of Sth commodity and export price of the world of the respective commodity (S).

Export price of a commodity in each NIC has thus been compared with the world. Implicitly, world is assumed as competitor vis-a-vis the each NICs. An increase in export price of specific NICs for specific commodity relative to world would thus indicate the fall in price competitiveness and vice-versa. Such an exercise has, however, been undertaken only for 35 traditional commodities and that too is restricted for 1984 and 1988. This is because data on price readily available from published sources have fluctuated enormously from one year to another. Further, change in unit of export commodities has often been the general occurrence observable in important published sources.²⁶ Thus, taking such heterogeneity into account Commodity Year Book²⁷ has been used as basic source of information. The similar exercise for non-traditional commodities has been dropped on account of paucity of information.

It may be recapitulated that, during 1979-81 - 1985-87, the sign of competitiveness has been found to be positive in large number of traditional sector product groups in Brazil, India, Israel, Korea Republic, Malaysia, Pakistan, Singapore and Turkey vis-a-vis the rest of the world. This may be partly the result of improvement in price competitiveness.

The result of price competitiveness worked out in table-IV.8 provides a strong empirical support in some NICs. As far example, price competitiveness improved in 17, out of 22 traditional commodities in Brazil. For instance, fall in price has been recorded considerably in Bananas from US \$ 75 per metric tonne in 1984 to US \$ 58 per metric tonne in 1988; 87 to 64 in tea; 120 to 102 in spices; 100 to 72 in paper; 95 to 83 in groundnut oil; 95 to 75 in palm oil; 76 to 57 in cotton; 98 to 91 in mangonese ore; 94 to 67 in ferro mangonese; 87 to 73 in tungston ore, etc. Similarly, price competitiveness in 12 traditional products, out of 19, improved in Malaysia vis-a-vis the rest of the world. Price of bovine meat fell from US \$ 73 per metric tonne in 1984 to US \$ 44 per metric tonne in 1988; 110 to 49 in rice; 84 to 57 in coffee; 104 to 84 in coca beans; 120 to 96 in cocoa products; 117 to 97 in spices; 104 to 95 in paper; 150 to 127 in soybeans; 111 to 82 in lead metals, etc. In Turkey, improvement in price competitiveness has been recorded in 9, out of 11 traditional commodities vis-a-vis the rest of the world. Such commodities are: wheat, course grains, paper, spices, natural rubber, cotton, alumina, refined copper and tungston ore.

However, there was no improvement in price competitiveness in majority of traditional products in India, Israel, Korea Republic, Singapore and Pakistan (Table IV.8). As far the price competitiveness in India's engineering goods were concerned, it exceeded the international price by 40-60 per cent and in numerous products the price difference even

Table IV.8 : Price Competitiveness of Selected Export-Commodities in Selected Newly Industrializing Developing Countries : 1984 and 1988

(Price per metric tonne in US \$)

Sr. No.	Commodities	Argentina		Brazil		India		Israel		Korea Republic	
		1984	1988	1984	1988	1984	1988	1984	1988	1984	1988
1.	Bovine meat	98	117	91	79	55	35	--	--	--	--
2.	Wheat and wheat floor	85	70	--	--	327	89	202	286	212	76
3.	Rice	106	77	94	84	186	148	--	--	65	229
4.	Coarse grains	86	71	92	108	137	159	--	--	--	--
5.	Bananas	--	--	75	58	--	--	--	--	--	--
6.	Coffee	--	--	99	90	99	101	134	83	--	--
7.	Coca beans	--	--	111	94	116	--	--	--	--	--
8.	Coca products	--	--	100	81	128	116	--	--	--	--
9.	Tea	49	35	87	64	115	111	--	--	91	141
10.	Spices	--	--	120	102	74	113	85	107	171	126
11.	Paper	--	--	100	72	95	104	--	--	151	82
12.	Groundnut oil	88	82	95	83	--	--	--	--	--	--
13.	Soybeans	98	100	105	106	84	101	--	--	--	--
14.	Soybean oil	95	89	98	93	106	120	--	--	--	--
15.	Coconut oil	--	--	--	--	--	--	--	--	--	--
16.	Palm oil	--	--	95	75	76	96	--	--	--	--
17.	Tobacco	--	--	--	--	89	88	--	--	162	157
18.	Natural rubber	--	--	--	--	--	64	--	--	186	84
19.	Cotton	68	61	76	57	95	76	109	113	--	--

Table IV.8 Contd...

Sr. No.	Commodities	Argentina		Brazil		India		Israel		Korea Republic	
		1984	1988	1984	1988	1984	1988	1984	1988	1984	1988
20.	Jute	--	--	236	--	34	48	--	--	--	--
21.	Alumina	--	--	87	140	83	81	--	--	--	--
22.	Aluminium	101	77	94	109	--	--	43	26	107	108
23.	Copper ore	--	--	103	--	--	--	90	--	--	--
24.	Refined copper	--	--	--	--	--	--	109	100	105	115
25.	Lead ore	136	98	--	--	--	--	--	--	235	110
26.	Lead metal	--	--	--	--	--	--	--	--	166	84
27.	Manganese ore	--	--	98	91	77	81	--	--	--	--
28.	Ferro manganese	--	--	94	67	101	--	--	--	--	--
29.	Nickel unwrought	--	--	--	--	--	--	63	39	--	--
30.	Phosphate rock	--	--	--	--	--	--	123	77	--	--
31.	Sulphur	236	1031	--	--	213	515	--	--	213	238
32.	Tin ore	296	144	--	--	--	--	--	--	--	--
33.	Tin metal	101	100	--	--	--	--	--	--	--	--
34.	Tungston ore	--	--	87	73	--	--	--	--	104	146
35.	Crude petroleum	85	93	--	--	102	--	--	--	--	--

Table-IV.8 Contd...

Sr. No.	Commodities	Malaysia		Pakistan		Singapore		Turkey	
		1984	1988	1984	1988	1984	1988	1984	1988
1.	Bovine meat	73	44	--	--	196	189	91	118
2.	Wheat and wheat flour	129	126	106	162	124	63	92	70
3.	Rice	110	49	109	92	146	196	--	--
4.	Coarse grains	--	--	109	212	113	108	93	88
5.	Bananas	33	37	132	107	--	--	--	--
6.	Coffee	84	57	--	--	100	83	--	--
7.	Coca beans	104	84	--	--	108	86	--	--
8.	Coca products	120	96	--	--	91	117	--	--
9.	Tea	53	108	43	53	105	138	101	105
10.	Spices	117	97	64	47	108	99	73	43
11.	Paper	104	95	--	--	96	116	65	47
12.	Groundnut oil	--	--	--	--	120	145	--	--
13.	Soybeans	150	127	--	--	142	126	--	--
14.	Soybean oil	90	107	--	--	114	119	--	--
15.	Coconut oil	112	112	--	--	113	118	--	--
16.	Palm oil	99	98	--	73	108	119	--	--
17.	Tobacco	--	--	121	100	273	125	--	--
18.	Natural rubber	102	104	--	--	--	--	278	146
19.	Cotton	--	--	79	78	111	106	99	78
20.	Jute	--	--	--	--	--	--	--	--
21.	Alumina	--	--	--	--	--	--	91	98

Table IV.8 Contd...

Sr. No.	Commodities	Malaysia		Pakistan		Singapore		Turkey	
		1984	1988	1984	1988	1984	1988	1984	1988
22.	Aluminium	--	--	--	--	--	--	--	--
23.	Copper ore	95	149	--	--	--	--	--	--
24.	Refined copper	--	--	--	--	111	109	113	98
25.	Lead ore	--	--	--	--	--	--	--	--
26.	Lead metal	111	82	--	--	444	2756	--	--
27.	Manganese ore	--	--	--	--	--	--	--	--
28.	Ferromanganese	--	--	--	--	--	--	--	--
29.	Nickel unwrought	51	--	--	--	48	130	--	--
30.	Phosphate rock	--	--	--	--	391	817	--	--
31.	Sulphur	--	--	--	--	114	115	--	--
32.	Tin ore	--	--	--	--	119	108	--	--
33.	Tin metal	63	99	--	--	86	97	--	--
34.	Tungsten ore	--	--	--	--	88	88	156	147
35.	Crude petroleum	99	108	--	--	101	106	--	--

Basic Source : Commodity Year Book, United Nations, 1991.

exceeded to 100 per cent.²⁸ With regard to the non-price factors, it was stressed that export demand of electric motors and transformers lagged behind in world market mainly due to their 'large size', 'heavier weights', 'lower speed' and because they 'water cooled' with 'horizontal size'. Also, the export demand of diesel engines, stagnated mainly due to their 'heavier weights', 'lower speed' and because they are 'water cooled' with 'horizontal size'. On the contrary, foreign made engines were of superior quality with 'higher speed', and 'air cooled' and had vertical size.²⁹ Similarly, packaging of electric fans and sewing machines' compared unfavourably with those of main competitors from Japan and Hongkong.³⁰ The factors per-se, though important they are, do not provide the complete explanation of export competitiveness in some NICs. It is essential, therefore, to trace out factors other than these. Hence, discussion on the role of trade policies becomes inevitable.

IX.3 Role of Trade Policies

Trade policy determining the competitiveness embraces numerous quantifiable and non-quantifiable factors. These are classified under two interrelated categories, i.e., (1) fiscal charges and (2) other controls. Fiscal charges are further disaggregated into four sub-groups, such as, (A) tariff charges, (B) additional fiscal charges, (C) service charges and (D) sales tax levied at importation. Other controls are divided further into six sub-groups, such as,

(A) quantitative restrictions, (B) money and finance measures, (C) customs valuation, (D) state trading monopoly, (E) preferential trading arrangements and (F) special entry products. A complete list of import control measures have been recorded in Appendix IV.5. It may, however, be mentioned that policy variables outlined are subject to enormous fluctuations over time in different NICs, which forbid us to examine their impacts in a quantitative precision. In spite of these constraints, we make an attempt herebelow to examine the impact of selected policy variables on export competitiveness.

IX.3.1 : First Period (1969-71 - 1979-81)

During 1969-71 - 1979-81, competitiveness effect in Brazil, Israel, Korea Republic, Malaysia and Singapore was found to be favourable in case of traditional products. A similar was the case in Argentina, India, Pakistan and Turkey for the non-traditional product exports as well. So as to reinforce such findings table-IV.9 presents the state of tariff and non-tariff barriers imposed by developed countries (EEC, USA and Japan) on exports from NICs. It was found that, in 1974, weighted average tariff rate in EEC and USA was higher on manufacturing exports from Brazil, India, Korea Republic, Malaysia, Pakistan and Singapore, while on primary goods exports from Israel and Argentina. Similarly, weighted

Table-IV.9 : Tariff and Non-Tariff Barriers on Primary and Manufactured Exports in Selected Newly Industrializing Developing Countries in Principal Import-Markets : 1974

Country/Products	E E C				
	Total imports		Imports subject to NTBs		
	Value (\$ million)	Weighted average tariff rate	Export restraints (\$ million)	Licencing plus quota (\$ mi- llion)	Variable levies (\$ mi- llion)
1. <u>Argentina</u>					
All goods	1561.2	4.2	5.2	170.3	831.3
Primary goods*	1443.4	4.5	0.0	131.8	830.9
Manufactures**	117.9	2.7	5.2	38.5	0.4
2. <u>Brazil</u>					
All goods	2707.9	2.7	118.7	53.2	210.6
Primary goods*	2376.7	2.2	0.0	16.2	209.1
Manufacturers**	331.1	5.8	118.7	37.0	1.5
3. <u>India</u>					
All goods	1033.8	4.5	179.3	121.5	7.7
Primary goods*	526.6	2.9	0.0	2.5	7.7
Manufactures**	507.3	5.8	179.3	119.0	0.1

Table-IV.9 Contd.

4. Israel

All goods	613.1	2.1	46.7	24.7	6.1
Primary goods *	356.9	3.7	0.0	8.8	6.1
Manufactures**	256.3	0.0	46.7	16.0	0.0

5. Korea Republic

All goods	543.5	11.5	207.6	90.8	0.4
Primary goods*	100.1	3.3	0.0	5.4	0.4
Manufactures**	443.3	12.9	207.6	85.4	0.0

6. Malaysia

All goods	1055.4	1.8	16.9	5.0	0.7
Primary goods*	957.8	1.2	0.0	0.2	0.1
Manufactures**	97.6	8.2	16.9	4.8	0.6

7. Pakistan

All goods	291.7	4.9	128.2	36.5	11.3
Primary products*	89.1	1.1	0.0	0.8	11.3
Manufactures**	202.6	6.0	128.2	35.7	0.0

8. Singapore

All goods	414.6	6.9	32.2	29.9	0.3
Primary goods*	126.6	2.4	0.0	1.5	0.3
Manufactures**	288.0	8.8	32.2	28.4	0.0

Table IV.9 Contd...

Japan					
<hr/>					
1. <u>Argentina</u>					
All goods	229.0	4.7	0.0	28.3	0.00
Primary goods*	183.7	1.7	0.0	1.9	0.0
Manufactures**	45.4	16.8	0.0	26.4	0.0
2. <u>Brazil</u>					
All goods	657.2	7.5	0.0	332.1	0.0
Primary goods*	555.7	8.0	0.0	284.0	0.0
Manufactures**	101.5	4.5	0.0	48.1	0.0
3. <u>India</u>					
All goods	658.2	6.1	0.0	366.2	0.0
Primary goods*	562.0	6.2	0.0	361.2	0.0
Manufactures**	96.2	5.9	0.0	5.0	0.0
4. <u>Korea Republic</u>					
All goods	1568.0	7.1	0.0	304.3	0.0
Primary goods*	534.2	7.3	0.0	260.4	0.0
Manufactures**	1033.8	7.0	0.0	43.9	0.0
5. <u>Malaysia</u>					
All goods	979.0	1.0	0.0	31.1	0.0
Primary goods*	922.8	0.9	0.0	26.5	0.0
Manufactures**	56.2	2.5	0.0	4.6	0.0
6. <u>Singapore</u>					
All goods	619.0	3.9	0.0	530.9	0.0
Primary goods*	547.8	4.0	0.0	522.5	0.0
Manufactures**	71.2	2.5	0.0	8.4	0.0

Table IV.9 Contd..

U S A					
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1. <u>Argentina</u>					
All goods	372.0	3.7	2.0	72.0	0.0
Primary goods*	256.8	3.9	0.2	72.0	0.0
Manufactures**	115.1	3.2	1.8	0.0	0.0
2. <u>Brazil</u>					
All goods	1671.4	2.8	53.2	405.2	0.0
Primary goods*	1234.3	1.9	4.0	405.2	0.0
Manufactures**	437.1	5.1	49.2	0.0	0.0
3. <u>India</u>					
All goods	553.0	3.9	70.6	33.9	0.0
Primary goods*	185.2	0.9	0.4	33.9	0.0
Manufactures**	367.9	5.4	70.2	0.0	0.0
4. <u>Israel</u>					
All goods	279.0	5.0	25.9	5.0	0.0
Primary goods*	27.7	3.5	1.0	5.0	0.0
Manufactures**	251.3	5.7	24.9	0.0	0.0
5. <u>Korea Republic</u>					
All goods	1424.2	12.8	289.3	2.3	0.0
Primary goods*	296.6	5.5	9.6	2.3	0.0
Manufactures**	1127.6	14.7	279.7	0.0	0.0
6. <u>Malaysia</u>					
All goods	761.8	1.6	8.3	65.4	0.0
Primary goods*	548.5	0.3	0.0	65.4	0.0
Manufactures**	213.2	5.0	8.3	0.0	0.0

Table IV.9 Contd...

7. Singapore

All goods	541.2	6.5	68.5	32.5	0.0
Primary goods*	92.8	1.2	1.8	32.5	0.0
Manufactures**	448.4	7.6	66.7	0.0	0.0

Source : Yeats, A.J., Trade Barriers Facing Developing Countries,
Macmillan, 1979, pp.205-220

* Relates to SITC 0 to 4 plus 67 and 68.

** Relates to SITC 5 to 9 minus 67 and 68.

average tariff rate was found higher in Japan on primary commodity exports from Brazil, India, Korea Republic and Singapore, while on manufactured exports from Argentina and Malaysia.

With regard to non-tariff barriers, the export restraint was found more significant in EEC on manufacturing export-commodities from all NICs, while licensing plus quota from all NICs except from Argentina. Its influence in Japan and USA was found to be more significant on primary commodities than on manufactures. A much similar was also the case with regard to influence of variable levies, which was found to be more sensitive in EEC on primary commodity exports than that on manufacturing from NICs. It suggests that the impact of tariff has been more adverse on manufacturing items from NICs in EEC, USA and Japan (Table-IV.9).

Within the non-traditional sector, Argentina, Brazil, Israel, Korea Republic, and Singapore portrayed the favourable competitiveness effect in chemicals (5.0) and machinery and transport equipment (7.0). Factors partly responsive to this in Argentina were the low tariffs, licensing, quota and variable levies imposed by EEC and USA, which outweighed the adverse effect due to high tariffs by Japan and export restraint by EEC. A similar, more or less, was also the case in non-traditional product's export from Brazil, Israel, Korea Republic and Singapore, where tariffs, licensing, quota and variable levels were reduced

significantly by different import-markets. On the other hand, negative competitiveness effect in chemicals (5.0) and in manufactured goods classified by materials (6.0) in India, Malaysia and Pakistan was due partly to the higher tariffs and non-tariffs imposed by major developed countries including, USA, Japan and EEC.³¹

Besides above, Korea Republic, also exempted 50 per cent of income in 1973 earned through exporting from income tax. Also, full indirect tax exemption had been granted for export production and thus were left outside of GRS. In 1975, tariff exemption was further replaced by a fixed draw back systems, which combined the individual draw back system of 1981. Post-shipment financing (short-term) backed by automatic rediscounting by Bank of Korea became more effective as Ex-Im Bank of Korea extended long-term post-shipment financing facility along with export-credit insurance. There also existed Korea Credit Guarantee Fund, which provided the pre-shipment export finance guarantee. Also, in 1981, 218 BMWs were established. Free Trade Zone in Korea Republic which was established in 1971, increased from very low base to 9 in 1985, the year when 14 Regional Industrial Estates were established. Excellent infrastructural facility was further developed at the national level. Two trade organisations, such as, Korean Trade Association and Korean Trade Promotion Corporation and 30 specialised export associations were established with a view to improve the marketing information and quality control efficiencies.

Malaysia, which portrayed favourable competitiveness in various products under traditional and non-traditional sectors, exempted 10 per cent of export to value added from income tax for manufacturer exporters in addition to exemptions from duty draw back and other schemes. Pre and post shipment export-finance facility was also made available at preferential rates to indirect exporters who, however, had not been benefited so far. FIZs and BNWs (called as licensed manufactured ware houses) also existed since early 1970s and by 1982, exports from these sources accounted for about 60 per cent of total manufactured exports. Export Trade Centres helped in a great deal for enhancing the export competitiveness in terms of improving the marketing efficiency and information network.

In Brazil, observed favourable competitiveness effect in various traditional and non-traditional products was due partly to the heavy subsidisation, while that in Argentina partly to the diversification of export commodities from traditional to non-traditional exports. Of late, air craft industry³² was cited as illustrative example in Brazil for heavy subsidisation.

There were various internal factors at work in India which caused the favourable competitiveness in several products under non-traditional sector. For instance, in 1969-70, the import of 319 items under import policy regime was banned, while heavy restrictions on import of 219 items

were imposed. Under import policy of 1975, units exporting 20 per cent of their output were made eligible to obtain import licences in addition to that obtained during the previous year. Ceiling for import of non-permissible items was raised from 5 per cent to 10 per cent and the limit for free foreign exchange earnings was raised to Rs.10,000 for small scale units. Simultaneously, export promotion schemes, such as, duty drawback, cash compensatory support, cash assistance, import replenishment, etc. existed in the earlier years, were made more effective. The expenditure incurred on export promotion measures increased over 6 times from Rs.166.4 crores in 1975 to Rs.1089.6 crores in 1980.³³

IX.3.2 Second Period (1979-81 - 1985-87)

Over 1979-81 - 1985-87, there was favourable competitiveness effect in various products under traditional sector in Brazil, India, Israel, Korea Republic, Malaysia, Pakistan, Singapore and Turkey, whereas, unfavourable competitiveness effect was observed in Argentina vis-a-vis the rest of the world. Similarly, several products under non-traditional products in Brazil, Korea Republic, Malaysia, Pakistan, Singapore and Turkey portrayed the favourable competitiveness effect whereas, reverse was the case in Argentina, India and Israel.

Major factors under trade regime generally attributable to the observed competitiveness were the protectionism and

neo-protectionism policies pursued hitherto by developed market economies. Discussions held under New International Economic Order (NIEO)³⁴, since mid-1970 under various GATT rounds and UNCTAD conferences did emphasise the tariff and non-tariff concessions on variety of products' export from developing countries, yet in reality either such concessions were woom off only at the stage of debate and discussions or the extent of concessions thereunder was too insignificant to make any profound impact on the increase of exports from developing to developed countries. It has thus been concluded that : "Non-tariff distortions of the EC turn out to be very frequent and 90 per cent of them are discriminatory. Other work confirms the sharp rise in EC protection vis-a-vis developing countries' and the comparatively high 'managed trade' in manufactures. Typically, as in one of the most protectionist and debated selective instrument, the EEC seems to have become more and more a 'champion on protection'. Last but not the least, that verdict grounds on two further peculiarities : (a) the bilateral deals and bargaining power politics; and (b) the selective approach to the GATT safeguard provisions".³⁵

Tariff concessions, thus, offered during post Tokyo Round under GATT were generally considered to be symbolic. It was noted that "percentage share of imports received concessions in the total imports was estimated to be not larger than 1.0 per cent in Brazil, 5.9 per cent in Argentina, 5.7 per cent for South Korea and 10 per cent for

Malaysia. Thus, product coverage was small and so was the tariff cuts, that is the margin of concession. In Singapore, there appeared no binding for tariff concessions at all.³⁶ Yet the average tariffs in the industrial countries (United States, United Kingdom, Switzerland, Netherland, Germany, Denmark and Belgium) which ranged between 11 per cent to 32 per cent in 1980, declined at 7 per cent in 1987".³⁷

The decline in tariff barriers especially after Tokyo Round on exports from developing countries was seen accompanied by rise in non-tariff barriers. It has been noted that "NTBs are less prevalent on industrial economies' imports of agricultural goods than that from developing economies, but that the reverse is true for manufactures. Nonetheless, developing economies still generally face more barriers to agricultural exports than to manufactures, and since agriculture accounts for a higher share of imports from developing economies than from industrial ones, agricultural protection still contributes to the differential incidence at the aggregate level. In the manufacturing sector, developing economies face more barriers than industrial ones to their large-volume exports, such as in textiles and footwear, and fewer to their small volume ones, such as, electrical machinery and vehicles. NTBs are relatively expensive on the exports of the developing economies that are major borrowers. For these economies, all three indexes assume values which are 1-2 per centage points higher than those for all

developing economies and 7-8 percentage points higher than those for all exporters."³⁸

The NTBs coverage was found larger on exports from developing countries as compared to developed countries even in terms of absolute values. Export values facing NTBs from developing and developed countries were found to be US \$ 86 billion and US \$ 81 billion respectively. It was noted that, "between 1981 and 1983, a net increase of 2486 in numbers of NTBs was recorded. The NTBs in place of 1983 covered \$ 12.8 billion more of 1981's imports than did those in place in 1981. This additional \$ 12.8 billion which came under NTBs was approximately 1.5 per cent of those countries total imports in 1981 and approximately 6 per cent of the values of imports subject to NTBs".³⁹

Across the different important product groups, it was found that in 1985, the share of non-fuel products' exports from developing countries, which faced NTBs, was 12 per cent in USA market. It was higher than the respective share of 3.4 per cent from developed countries. The corresponding shares were 14.4 per cent and 2.7 per cent in manufacturing; 65.3 per cent and 25.5 per cent in textiles and clothing; and 11.8 per cent and 11.7 per cent in agriculture. However, in case of iron and steel it was 4.5 per cent in developing and 24.6 per cent in developed countries. A much similar was also the case in European Economic Community and Japan. In 1985, NTBs imposed by Japan were found to be 10.5 per cent on

non-fuel products, 14.2 per cent on textiles and clothing and 42.2 per cent on footwear product-exports from developing countries, which were far higher than that imposed on exports from developed countries on the corresponding products, being 9.5 per cent, 14 per cent and 34.3 per cent.⁴⁰

Also, the favourable competitiveness effect in various products under traditional and non-traditional sectors in Brazil, Korea Republic, Malaysia, Pakistan, Singapore and Turkey vis-a-vis the rest of the world might have been conditioned in part by the reforms introduced by the trade regime during 1980s. Table-IV.10 records the recent changes in trade policies. The import surveillance system, introduced in Korea Republic in 1979 was abolished in January 1989 and that the quantitative restrictions affecting imports of 1106 products were eliminated. A three year import liberalisation programme (1992-1994) was announced in March 1991, which aimed at phasing out of the restrictions on 173 agricultural products.

Similarly, in Pakistan, maximum tariff of 225 per cent which existed earlier was reduced to 125 per cent in 1990. A programme of reform, which was initiated in July 1988, emphasised the shifting of non-tariff barriers to tariffs as main element in trade policy. Whereas import restriction for certain products was retained for balance of payment purposes, the import licensing for few products was eliminated on March, 1991. In Turkey, tariffs were reduced in 1989, while import licensing was abolished in 1990.⁴¹ A

Table-IV.10 : Recent Tariff Reductions in Selected NICs

1. Argentina Tariff duties on imports were reduced from 1988 on wide range of products. The average tariff, which was 38.2 per cent in 1988, fell down to 29.4 per cent in 1990 and that ranged from 5 per cent to 40 per cent. In 1991, a new tariff structure was introduced i.e., 11 per cent and 22 per cent advalorem. Import licensing and other non-tariff restrictions were abolished except for 22 items (vehicles and parts, which remain subject to quota).
2. Brazil Average tariff, which was 37 per cent in 1990 was reduced to 25 per cent in 1991. Suspension of issues of import licences affecting 1200 items was discontinued and the "prohibited list" of products was removed. Company import quotas were eliminated in June 1990.
3. India Import duties in India under New Economic Policy on large number of raw materials, capital goods and components were drastically reduced. India devalued rupee against dollar and followed the supply-demand determined exchange rate management system. EXIM scrip policy was initiated, under which certain imports were permitted only against export entitlement. Role of privatisation increased as number of public sector industries reduced from 17 to 8 and that participation of multinationals was allowed upto 49 per cent of the equity shares.
4. Pakistan The maximum tariff, which was 225 per cent, earlier, reduced to 125 per cent in 1990. In July 1988, a programme of reform was initiated which laid emphasis on tariffs than on the non-tariff measures as the main trade policy instrument. Import restrictions are retained on certain products for balance of payment purposes, where as, import licensing has been eliminated on other products as on March 1991.

Table-IV.10 Contd...

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| 5. <u>Korea</u>
<u>Republic</u> | The maximum surveillance system, introduced in 1979, was abolished since January 1989. Between July 1986 and January 1991, quantitative restrictions affecting imports of 1106 products were eliminated. A three-year import liberalisation programme for 1991-1994 was announced in March 1991, which provided the facility for phasing out of restrictions on 133 agricultural products. |
| 6. <u>Turkey</u> | Tariffs reduced in 1989, and import licensing was abolished in 1990. |
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Source : United Nations, Trade and Development Report, 1991.

much similar was also the case in Malaysia and Singapore, where trade liberalisation played a vital role for enhancing the production and exports and thereby improving the competitiveness.

India, similarly, pursued more forcefully trade liberalization regime under the New Economic Policy since 1991. Under the market determined approach, import-control through licensing was virtually abolished and import-duties were proposed to be lowered in stages i.e., 150 per cent in 1991, 110 per cent in 1992 and 85 per cent in 1993. Duties on capital goods also reduced, which varied from 25 per cent to 75 per cent⁴¹. Also, India pursued numerous policy stimuli in the form of import-entitlement scheme, duty draw back, cash compensatory supports in association with 'stability'

and uncertainty' clauses for promotion of exports. It was noted that expenditure on export promotion in India rose over 3 times from Rs.1422 crores in 1981 to Rs.4952.1 crores in 1988.⁴² Thus, owing to the economic reforms, various products in traditional and non-traditional sectors gained competitive ability in majority of NICs vis-a-vis the rest of the world.

X. Trade Cooperation Based on Export Competitiveness

Based on competitiveness criterion, we may now discuss the possibility of trade cooperation among selected newly industrializing developing countries (NICs). This is attempted at 2 digit levels of SITC groupings from 1979-81 to 1985-87. This period was considered important, because it captured relatively more recent changes introduced in price and non-price factors on the internal supply and to that on external demand of the export-country.

Based on the general findings, table-IV.11 portrays the block-wise and commodity-wise intra NICs trade cooperation. Given the framework of analysis, first block (Argentina, Korea Republic and Malaysia) may export variety of products (24, 25, 27, 28 and 29) from crude materials inedible except fuels (2.0), (42 and 43) Animal vegetable oils and fats (4.0) and (61, 64, 66 and 69) from manufactured goods classified by materials (6.0) to the rest of the blocks. Similarly, second block (Brazil, India and Israel), in turn, may export

Table- IV.11 : Formation of Trade Cooperation Across Commodities Based on Favourable Competitiveness Effect Among Selected Newly Industrializing Developing Countries : 1979-81 - 1985-87.

Block of exporting countries	Exporting Commodities	Importing countries
I		
A - <u>Traditional Sector</u>		
Argentina, Korea Republic, Malaysia	Cork and Wood (24), Pulp and waste paper (25), Crude fertilizers, minerals, n.e.s. (27), Metalliferrous ores, scrap (28), Crude animals, vegetables, materials (24), Gas, natural and manufactured (34), Fixed vegetable, oil, fats (42), Processed animal vegetable oils (43), Leather dressed fur etc. (61), Paper, paper board and manufactures (64), Non-metallic minerals manufactures (66), Non-ferrous metals (68) and Metal manufactures (69).	1. Brazil 2. India 3. Israel 4. Pakistan 5. Singapore, and 6. Turkey
II		
Brazil, India, Israel	Fish and preparations (03), Cereals and preparations (04), Vegetable and fruits (05), Sugar and preparations and honey (06), Miscellaneous edible products (09), oil honey (06), miscellaneous edible products (09), Coal, coke and brequettes (32) and Petroleum and products (33).	1. Argentina 2. Korea Republic 3. Malaysia 4. Pakistan and 5. Singapore 6. Turkey

Table-IV.11 Contd...

III		
Pakistan, Singapore, Turkey	Beverages (11) and Tobacco and manufactures (12)	1. Argentina 2. Korea Republic 3. Malaysia 4. Brazil 5. India 6. Israel
B - <u>Non-Traditional Sector</u>		
I		
Argentina, Malaysia, Singapore Turkey	Plumbing, heating, lighting equipment (81), Clothing (84), Watches and clocks (86), miscellaneous manufactured goods (89).	1. Brazil 2. Israel 3. India 4. Korea Republic and 5. Pakistan
II		
Brazil, India, Israel	Machinery for special industries (72), General industrial machinery (74), Telecommunication, Sound equipments (76) and Road vehicles (78).	1. Argentina 2. Malaysia 3. Singapore 4. Turkey 5. Korea Republic and 6. Pakistan
III		
Korea Republic Pakistan	Dyes, tanning, colour products (53), Medicinal, pharmaceutical products (54), Fertilizers manufactured (56) and chemical materials, n.e.s. (59).	1. Argentina, 2. Malaysia, 3. Singapore, 4. Turkey, 5. Brazil, 6. India and 7. Israel

Source : Commodity Trade Statistics, United Nations, Year Book of International Trade Statistics, United Nations, Monthly Statistics of Foreign Trade of India, DGCI & S, Calcutta, Various issues.

05, 06 and 09) from food and live animals (0.0) and (32 and 33) from mineral fuels, lubricants and related materials (3.0) to the rest of the blocks. Third block (Pakistan, Singapore and Turkey) reciprocally may export such products as (11 and 12) from beverages and tobacco (1.0) to the rest of the blocks.

With regard to non-traditional products, first block may export variety of products (81, 84, 86 and 89) from the miscellaneous manufacturing goods (8.0) to the rest of the blocks. Likewise, second block (Brazil, India and Israel), may, in turn, export some products (72, 74, 76 and 78) from machinery and transport equipment (7.0) to the rest of the blocks. Third block reciprocally may export some products (53, 54, 56 and 59) from chemicals (5.0) to the rest of the blocks (Table-IV.11)

XI. Concluding Remarks

Present chapter examines the behaviour of export competitiveness by employing constant-market-share-model. The CMS model describes 4 inter-related elements, such as, (1) world trade effect, (2) commodity composition effect, (3) market distribution effect, which are largely confined to the world demand conditions while the residual (4) competitiveness effect, shows the influence of internal production conditions and the role of trade regime of the export-country.

During 1969-71 - 1979-81, competitiveness effect in Brazil, Israel, Korea Republic, Malaysia and Singapore in various products under traditional, while all NICs under non-traditional sector was found to be favourable vis-a-vis the rest of the world. Competitiveness effect in Argentina, India, Pakistan and Turkey in traditional sector was, however, found to be unfavourable vis-a-vis the rest of the world. During second period (1979-81 - 1985-87, competitiveness effect in Brazil, India, Israel, Korea Republic, Malaysia, Pakistan, Singapore and Turkey in various products under traditional, while that in Brazil, Korea Republic, Malaysia, Pakistan, Singapore and Turkey in the non-traditional sector was found to be favourable vis-a-vis the rest of the world. However, competitiveness effect in Argentina in various products in traditional and non-traditional sector and that in India and Israel in the non-traditional sector was found to be unfavourable vis-a-vis the rest of the world. Interestingly, products under traditional sector are seen to have gained more competitive ability than that under the non-traditional sector over the periods.

Favourable competitiveness effect observed during the period in various products under traditional and non-traditional sectors in majority of NICs was found partly to the country's labour cost advantages and partly to the material cost advantages. The finding of the study thus suggests the labour cost followed by material cost advantages as a partial determinant of favourable competitiveness in

majority of products and NICs vis-a-vis the rest of the world.

In addition to above, during 1979-81 - 1985-87, the improved price competitiveness was also found as important causal factor for favourable competitiveness effect in majority of traditional items and NICs vis-a-vis the rest of the world. However, a reverse was the case in India, where apart from the fall in price competitiveness, other non-price factors including inefficient marketing network were also held responsible for unfavourable competitiveness in certain non-traditional goods. A much similar was the case with respect of trade regime. Tariff and non-tariff barriers were seen largely responsive for the fall in competitiveness of various products under traditional and non-traditional sectors. However, liberalised internal production and trade policies in selected NICs exerted favourable influence for enhancing the export competitiveness.

Based on the competitiveness criterion, the formation of intra-NICs trade cooperation by blocks has been considered. It is suggested that first block may export some products from crude materials inedibles except fuels (2.0), animal vegetable oils and fats (4.0) and manufactured goods (6.0) to the rest of the blocks. Reciprocally, second block may export some products from food and live animals (0.0) and mineral fuels, lubricants and related materials (3.0) to the rest. Similarly, third block may export some products from

beverages and tobacco (1.0) to rest of the blocks. Within the non-traditional sector, first block may export some products from miscellaneous manufactured article, to the rest; second block from machinery and transport equipments (7.0) to the rest; and that of third block from chemicals (5.0) to the rest of the blocks.

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Appendix IV.1.1 : An Analysis of Export Performance of Argentina : 1969-71 - 1979-81 and 1979-81 - 1985-87

(Value in '000' US \$)

SITC Code No.	Commodities	Period	Change in export	CMS Components			
				World trade effect	Commo- dity composi- tion effect	Market distri- bution effect	Competiti- veness effect
A - Traditional Sector							
0.0	Food and live animals	1969-71 - 1979-81	667.12 (100.00)	2983.92 (433.79)	2501.87 (375.03)	-2038.77 (-305.61)	-2689.90 (-403.21)
		1979-81 - 1985-87	0.06 (100.00)	238.64 (397733.03)	-109.22 (-182033.33)	452.03 (753383.33)	-581.39 (-968983.33)
1.0	Beverages and tobacco	1969-71 - 1979-81	47.36 (100.00)	25.62 (54.10)	2876.05 (6072.74)	-2865.28 (-6050.00)	10.97 (23.16)
		1979-81 - 1985-87	-20.21 (100.00)	17.99 (-89.02)	337.22 (-1668.58)	-334.56 (1655.42)	-40.86 (202.18)
2.0	Crude materials inedi- ble except fuels	1969-71 - 1979-81	375.88 (100.00)	236.73 (62.98)	923.59 (245.71)	-945.91 (-251.65)	161.47 (42.96)
		1979-81 - 1985-87	-72.39 (100.00)	-	-	125.49 (-173.35)	-197.88 (273.35)
3.0	Mineral fuels lubrica- nts and related mate- rials	1969-71 - 1979-81	512.44 (100.00)	40.75 (7.95)	4664.24 (910.20)	-4653.29 (-908.07)	460.74 (89.92)
		1979-81 - 1985-87	-384.53 (100.00)	1.23 (-0.32)	47.18 (-12.27)	-224.50 (58.38)	-208.44 (54.21)
4.0	Animal vegetable Oils and fats	1969-71 - 1979-81	54.50 (100.00)	116.25 (213.30)	405.05 (743.20)	-309.17 (-567.28)	-157.63 (-289.22)
		1979-81 - 1985-87	33.50 (100.00)	-36.25 (-108.21)	-57.89 (-172.81)	70.44 (210.27)	57.20 (170.75)

Contd...

Appendix IV.1.1 Contd...

6.0	Manufactured goods classified by ma- terials	1969-71 - 1979-81	371.19 (100.00)	254.37 (68.53)	1057.29 (284.84)	-1069.65 (-288.17)	129.18 (34.80)
		1979-81 - 1985-87	323.66 (100.00)	-	-	238.62 (73.73)	85.04 (26.27)

B. Non-Traditional Sector

5.0	Chemicals	1969-71 - 1979-81	194.75 (100.00)	118.77 (60.99)	1315.38 (675.42)	-1331.96 (-683.93)	92.56 (47.52)
		1979-81 - 1985-87	-4.53 (100.00)	4.04 (-89.18)	82.20 (-1814.57)	257.63 (-5687.20)	-348.40 (7690.95)
7.0	Machinery and trans- port equipment	1969-71 - 1979-81	189.34 (100.00)	97.84 (51.67)	--	--	91.50 (48.33)
		1979-81 - 1985-87	-75.03 (100.00)	72.21 (-96.24)	354.92 (-473.04)	-205.78 (274.26)	-296.38 (395.02)
8.0	Miscellaneous manufa- ctured articles	1969-71 - 1979-81	-6.24 (100.00)	108.49 (-1738.62)	--	--	-114.73 (1838.62)
		1979-81 - 1985-87	86.12 (100.00)	19.31 (22.42)	208.55 (242.16)	-179.28 (-208.17)	37.54 (43.59)

Note : Figures under bracket denote percentage to change in export.

Source : Commodity Trade Statistics, United Nations, Year Book of International Trade Statistics, United Nations, Various Issues.

Appendix-IV.1.2 : An Analysis of Export Performance of Brazil : 1969-71 - 1979-81 and 1979-81 - 1985-87

(Value in '000' US \$)

SITC Code No.	Commodities	Period	Change in export	CMS Components			
				World trade effect	Commo- dity composi- tion effect	Market distrib- ution effect	Competiti- veness effect
A - Traditional Sector							
0.0	Food and live animals	1969-71 - 1979-81	2838.00 (100.00)	3592.00 (126.57)	6607.00 (232.80)	-7432.00 (-261.87)	71.00 (2.50)
		1979-81 - 1985-87	1237.00 (100.00)	563.00 (45.52)	313.00 (25.30)	536.00 (43.33)	-175.00 (-14.15)
1.0	Beverages and tobacco	1969-71 - 1979-81	296.16 (100.00)	71.27 (24.06)	8523.82 (2878.11)	-8521.13 (-2877.20)	222.20 (75.03)
		1979-81 - 1985-87	22.00 (100.00)	154.53 (702.41)	975.78 (4435.36)	-989.29 (-4496.77)	-119.02 (-541.00)
2.0	Crude Materials inedible except fuels	1969-71 - 1979-81	1534.85 (100.00)	1168.99 (75.16)	3247.53 (211.59)	-3327.56 (-216.80)	445.89 (29.05)
		1979-81 - 1985-87	1082.24 (100.00)	90.06 (8.32)	210.05 (19.41)	209.95 (19.40)	572.18 (52.87)
3.0	Mineral fuels lubricants and related materials	1969-71 - 1979-81	766.63 (100.00)	130.88 (17.07)	10513.15 (1371.35)	-10534.98 (-1374.19)	657.58 (85.77)
		1979-81 - 1985-87	-102.12 (100.00)	3.97 (-3.88)	368.94 (-361.28)	-619.72 (606.85)	144.69 (-141.69)
4.0	Animal vegetable oils and fats	1969-71 - 1979-81	119.74 (100.00)	164.34 (137.25)	4323.28 (3610.55)	-4385.54 (-3662.55)	17.66 (14.75)
		1979-81 - 1985-87	152.03 (100.00)	-65.29 (-42.95)	144.37 (94.96)	-130.13 (-85.59)	203.08 (133.58)

Appendix-IV.1.2 Contd..

6.0	Manufactured goods classified by ma- terials	1969-71 - 1979-81	1405.86 (100.00)	441.85 (31.43)	3463.04 (246.33)	-3560.89 (-253.29)	1061.86 (75.53)
		1979-81 - 1985-87	2321.11 (100.00)	--	--	1054.70 (45.44)	1266.41 (54.56)

B. Non-Traditional Sector

5.0	Chemicals	1969-71 - 1979-81	277.04 (100.00)	175.90 (63.49)	3228.58 (1165.38)	-3253.40 (-1174.34)	125.96 (45.47)
		1979-81 - 1985-87	368.17 (100.00)	12.67 (3.44)	3404.48 (924.70)	-2874.98 (-780.88)	-174.00 (-47.26)
7.0	Machinery and trans- port equipment	1969-71 - 1979-81	1097.41 (100.00)	329.56 (30.03)	--	-35.00 (-3.19)	802.85 (73.16)
		1979-81 - 1985-87	2087.53 (100.00)	212.62 (10.19)	324.87 (15.56)	1085.21 (51.98)	464.83 (22.27)
8.0	Miscellaneous manufa- ctured articles	1969-71 - 1979-81	87.26 (100.00)	368.69 (422.52)	--	-21.56 (-24.71)	-259.87 (-297.81)
		1979-81 - 1985-87	1389.36 (100.00)	113.79 (8.19)	531.41 (38.25)	-412.64 (-29.70)	1156.80 (83.26)

Source : Commodity Trade Statistics, United Nations, Year Book of International Trade Statistics,
Nations, Various Issues.

United

Appendix IV.1.3 : An Analysis of Export Performance of India : 1969-71 - 1979-81 and 1979-81 - 1985-87

(Value in '000' US \$)

SITC Code No.	Commodities	Period	Change in export	CMS Components			
				World trade effect	Commo- dity composi- tion effect	Market distri- bution effect	Competiti- veness effect
A - Traditional Sector							
0.0	Food and live animals	1969-71 - 1979-81	-4233.24 (100.00)	16649.20 (-393.30)	-45419.47 (1072.92)	32048.15 (-757.06)	-7511.12 (177.44)
		1979-81 - 1985-87	202.54 (100.00)	134.92 (66.61)	-2614.98 (-1291.09)	2899.77 (1431.70)	-217.17 (-107.22)
1.0	Beverages and tobacco	1969-71 - 1979-81	31.40 (100.00)	79.51 (253.22)	1152.73 (3671.11)	-1177.87 (-3751.18)	-22.97 (-73.15)
		1979-81 - 1985-87	-42.62 (100.00)	14.91 (-34.98)	-14.91 (34.98)	53.60 (-125.76)	-96.22 (225.76)
2.0	Crude materials inedible except fuels	1969-71 - 1979-81	483.62 (100.00)	651.71 (134.75)	1094.63 (226.34)	-844.81 (-174.68)	-417.91 (-86.41)
		1979-81 - 1985-87	200.36 (100.00)	--	--	137.30 (68.53)	63.06 (31.47)
3.0	Mineral fuels lubricants and related materials	1969-71 - 1979-81	752.57 (100.00)	94.45 (12.55)	8061.49 (107.20)	-7261.83 (-964.94)	-141.54 (-18.81)
		1979-81 - 1985-87	-232.88 (100.00)	3.00 (-1.29)	8155.94 (-3502.21)	-8457.62 (3631.75)	65.80 (-28.25)
4.0	Animal vegetable oils and fats	1969-71 - 1979-81	21.67 (100.00)	43.77 (201.98)	1767.09 (8154.55)	-1791.02 (-8264.97)	1.83 (8.44)
		1979-81 - 1985-87	-22.64 (100.00)	-14.02 (61.93)	-31.57 (139.44)	44.91 (-198.37)	-21.96 (97.00)

Appendix - IV.1.3 Contd..

6.0	Manufactured goods classified by ma- terials	1969-71 - 1979-81	1195.33 (100.00)	1469.73 (122.96)	3109.03 (260.10)	-3077.37 (-257.45)	-306.06 (-25.60)
		1979-81 - 1985-87	1796.39 (100.00)	--	--	1156.03 (64.36)	640.36 (35.64)

B. Non-Traditional Sector

5.0	Chemicals	1969-71 - 1979-81	72.91 (100.00)	87.25 (119.67)	1452.66 (1992.40)	-1460.54 (-2003.21)	-6.46 (-8.86)
		1979-81 - 1985-87	137.40 (100.00)	4.26 (3.10)	216.72 (157.72)	-69.16 (-50.33)	-14.42 (-10.49)
7.0	Machinery and trans- port equipment	1969-71 - 1979-81	252.13 (100.00)	186.95 (74.15)	--	--	65.18 (25.85)
		1979-81 - 1985-87	-19.96 (100.00)	75.20 (-376.75)	200.04 (-1002.20)	-12.34 (61.82)	-282.86 (1417.13)
8.0	Miscellaneous manufa- ctured articles	1969-71 - 1979-81	715.46 (100.00)	251.52 (35.16)	--	--	463.94 (64.84)
		1979-81 - 1985-87	821.78 (100.00)	401.66 (48.88)	890.34 (108.34)	-399.08 (-48.56)	-71.14 (-8.66)

Source : Commodity Trade Statistics, United Nations, Year Book of International Trade Statistics, United Nations; Monthly Statistics of Foreign Trade of India, DGCI & S, Calcutta., Various Issues.

Appendix-IV.1.4 : An Analysis of Export Performance of Israel : 1969-71 - 1979-81 and 1979-81 - 1985-87

(Value in '000' US \$)

SITC Code No.	Commodities	Period	Change in export	CMS Components			
				World trade effect	Commo- dity composi- tion effect	Market distri- bution effect	Competiti- veness effect
A - Traditional Sector							
0.0	Food and live animals	1969-71 - 1979-81	347.10 (100.00)	510.30 (147.02)	811.29 (233.73)	-737.90 (-212.59)	-236.59 (-68.16)
		1979-81 - 1985-87	180.22 (100.00)	72.55 (40.26)	213.18 (118.29)	-253.46 (-140.64)	147.95 (82.09)
1.0	Beverages and tobacco	1969-71 - 1979-81	1.77 (100.00)	2.93 (165.54)	1148.95 (64912.43)	-1148.45 (-64912.43)	-1.16 (-65.54)
		1979-81 - 1985-87	0.75 (100.00)	--	--	1.11 (148.00)	-0.36 (-48.00)
2.0	Crude materials inedible except fuels	1969-71 - 1979-81	244.18 (100.00)	63.04 (25.82)	609.05 (249.43)	-613.71 (-251.34)	185.80 (76.09)
		1979-81 - 1985-87	33.14 (100.00)	--	--	80.49 (242.88)	-47.35 (-142.88)
3.0	Mineral fuels lubricants and related materials	1969-71 - 1979-81	3.14 (100.00)	267.70 (8525.48)	659.01 (20987.58)	-685.06 (-21817.20)	-238.51 (-7595.86)
		1979-81 - 1985-87	30.90 (100.00)	--	--	-15.04 (-48.67)	45.94 (148.67)
4.0	Animal vegetable oils and fats	1969-71 - 1979-81	-2.57 (100.00)	5.88 (-228.79)	635.89 (-24742.80)	-638.19 (24832.29)	-6.15 (239.30)
		1979-81 - 1985-87	0.70 (100.00)	-0.08 (-11.43)	145.16 (20737.14)	-145.13 (-20732.86)	0.75 (107.15)

Appendix-IV.1.4 Contd..

6.0 Manufactured goods
classified by
materials

1969-71 - 1979-81	1039.73 (100.00)	691.81 (66.54)	2566.13 (246.80)	-2583.13 (-248.44)	364.92 (35.10)
1979-81 - 1985-87	1751.88 (100.00)	—	—	899.90 (51.37)	851.98 (48.63)

B. Non-Traditional Sector

5.0 Chemicals

1969-71 - 1979-81	350.81 (100.00)	151.69 (43.24)	7492.80 (2135.86)	-7515.22 (-2142.25)	221.54 (63.15)
1979-81 - 1985-87	303.41 (100.00)	12.72 (4.19)	144.03 (47.47)	416.07 (137.13)	-269.41 (-88.79)

7.0 Machinery and trans-
port equipment

1969-71 - 1979-81	384.65 (100.00)	166.31 (43.24)	—	—	218.34 (56.76)
1979-81 - 1985-87	546.52 (100.00)	104.05 (19.04)	324.70 (59.41)	148.53 (27.18)	-30.76 (-5.63)

8.0 Miscellaneous manufa-
ctured articles

1969-71 - 1979-81	364.23 (100.00)	222.05 (60.96)	—	—	142.18 (39.04)
1979-81 - 1985-87	404.14 (100.00)	226.10 (55.95)	817.62 (202.31)	-556.01 (-137.58)	-83.57 (-20.68)

Source : Commodity Trade Statistics, United Nations, Year Book of International Trade Statistics, United Nations, Various Issues.

Appendix-IV.1.5 : An Analysis of Export Performance of Korea Republic : 1969-71 - 1979-81 and 1979-81 - 1985-87

(Value in '000' US \$)

SITC Code No.	Commodities	Period	Change in export	CMS Components			
				World trade effect	Commo- dity composi- tion effect	Market distrib- ution effect	Competiti- veness effect
A - <u>Traditional Sector</u>							
0.0	Food and live animals	1969-71 - 1979-81	779.81 (100.00)	179.86 (23.06)	2302.03 (295.21)	-2236.70 (-286.83)	534.62 (68.56)
		1979-81 - 1985-87	1106.12 (100.00)	112.89 (10.20)	592.19 (53.54)	-294.06 (-26.58)	695.11 (62.84)
1.0	Beverages and tobacco	1969-71 - 1979-81	88.60 (100.00)	32.20 (36.34)	2556.87 (2885.86)	-2560.75 (-2890.24)	60.28 (68.04)
		1979-81 - 1985-87	-9.73 (100.00)	—	—	56.37 (-579.34)	-66.10 (679.34)
2.0	Crude Materials inedible except fuels	1969-71 - 1979-81	271.26 (100.00)	124.85 (46.03)	655.65 (241.70)	-588.40 (-216.91)	79.16 (29.18)
		1979-81 - 1985-87	47.41 (100.00)	—	—	24.23 (51.11)	23.18 (48.89)
3.0	Mineral fuels lubricants and related materials	1969-71 - 1979-81	142.61 (100.00)	44.74 (31.37)	1849.68 (1297.02)	-1823.24 (-1278.48)	71.43 (50.09)
		1979-81 - 1985-87	448.43 (100.00)	—	—	-42.63 (-9.51)	491.06 (109.51)
4.0	Animal vegetable oils and fats	1969-71 - 1979-81	7.67 (100.00)	—	619.23 (8073.40)	-619.23 (-8073.40)	7.67 (100.00)
		1979-81 - 1985-87	-4.30 (100.00)	-2.52 (58.60)	87.87 (-2043.49)	-85.50 (1988.37)	-4.15 (96.52)
6.0	Manufactured goods classified by materials	1969-71 - 1979-81	2882.74 (100.00)	634.57 (22.01)	7367.72 (255.58)	-7335.54 (-254.46)	2215.99 (76.87)
		1979-81 - 1985-87	3829.91 (100.00)	—	—	1928.91 (50.36)	1901.00 (49.64)

Appendix-IV.1.5 Contd...

B. Non-Traditional Sector

5.0 Chemicals	1969-71 - 1979-81	328.11 (100.00)	64.96 (19.80)	4075.19 (1242.02)	-4115.49 (-1254.30)	303.45 (92.48)
	1979-81 - 1985-87	544.62 (100.00)	--	--	511.87 (93.99)	32.75 (6.01)
7.0 Machinery and transport equipment	1969-71 - 1979-81	2079.37 (100.00)	545.05 (26.21)	--	--	1534.32 (73.79)
	1979-81 - 1985-87	10455.23 (100.00)	387.53 (3.71)	169.88 (1.62)	2370.38 (22.67)	7527.44 (72.00)
8.0 Miscellaneous manufactured articles	1969-71 - 1979-81	5215.14 (100.00)	1414.63 (27.13)	--	--	3800.51 (72.87)
	1979-81 - 1985-87	8547.47 (100.00)	2939.16 (34.38)	-1211.85 (-14.18)	5652.89 (66.14)	1167.27 (13.66)

Source : Commodity Trade Statistics, United Nations, Year Book of International Trade Statistics, United Nations, Various Issues.

Appendix-IV.1.6 : An Analysis of Export Performance of Malaysia : 1969-71 - 1979-81 and 1979-81 - 1985-87

(Value in '000' US \$)

BITC Code No.	Commodities	Period	Change in export	CMS Components			
				World trade effect	Commo- dity composi- tion effect	Market distri- bution effect	Competiti- veness effect
A - <u>Traditional Sector</u>							
0.0	Food and live animals	1969-71 - 1979-81	326.27 (100.00)	287.20 (88.03)	365.60 (112.05)	-407.49 (-124.89)	80.96 (24.81)
		1979-81 - 1985-87	381.90 (100.00)	40.98 (10.73)	-288.20 (-75.46)	388.72 (101.79)	240.40 (62.94)
1.0	Beverages and tobacco	1969-71 - 1979-81	5.48 (100.00)	0.83 (15.15)	659.52 (12035.04)	-659.43 (-12033.39)	4.56 (83.20)
		1979-81 - 1985-87	13.31 (100.00)	--	--	6.66 (50.04)	6.65 (49.96)
2.0	Crude materials inedi- ble except fuels	1969-71 - 1979-81	1539.52 (100.00)	1951.16 (126.74)	2449.84 (159.13)	-2528.99 (-164.27)	-332.49 (-21.60)
		1979-81 - 1985-87	2201.76 (100.00)	--	--	486.61 (22.10)	1715.15 (77.90)
3.0	Mineral fuels lubrica- nts and related mate- rials	1969-71 - 1979-81	2149.02 (100.00)	405.84 (18.88)	18303.90 (851.73)	-18319.40 (-852.45)	1758.68 (81.84)
		1979-81 - 1985-87	1308.86 (100.00)	12.30 (0.94)	547.70 (41.84)	-1265.17 (-96.66)	2014.03 (153.88)
4.0	Animal vegetable oils and fats	1969-71 - 1979-81	833.64 (100.00)	338.08 (40.56)	2538.07 (304.46)	-2553.32 (-306.29)	510.81 (61.27)
		1979-81 - 1985-87	130.37 (100.00)	-327.54 (-251.24)	-447.49 (-343.25)	640.64 (491.41)	264.76 (203.08)
6.0	Manufactured goods classified by ma- terials	1969-71 - 1979-81	211.20 (100.00)	974.84 (461.57)	295.77 (140.04)	-104.84 (-49.64)	-954.57 (-451.97)
		1979-81 - 1985-87	686.28 (100.00)	--	--	260.57 (37.97)	425.71 (62.03)

Appendix-IV.1.6 Contd...

B - Non-Traditional Sector

5.0	Chemicals	1969-71 - 1979-81	45.34 (100.00)	77.02 (169.87)	1379.66 (3042.92)	-1385.55 (-3055.91)	-25.79 (-56.88)
		1979-81 - 1985-87	235.86 (100.00)	--	--	51.92 (22.01)	183.94 (77.99)
7.0	Machinery and transport equipment	1969-71 - 1979-81	1955.20 (100.00)	361.06 (18.47)	--	--	1594.14 (81.53)
		1979-81 - 1985-87	2429.12 (100.00)	216.32 (8.91)	212.22 (8.74)	2059.58 (84.78)	-59.00 (-2.43)
8.0	Miscellaneous manufactured articles	1969-71 - 1979-81	320.07 (100.00)	88.96 (27.79)	--	--	231.11 (72.21)
		1979-81 - 1985-87	813.61 (100.00)	179.51 (22.06)	222.54 (27.36)	--	411.56 (50.58)

Source : Commodity Trade Statistics, United Nations, Year Book of International Trade Statistics, United Nations, Various Issues.

Appendix-IV.1.7 : An Analysis of Export Performance of Pakistan : 1969-71 - 1979-81 and 1979-81 - 1985-87

(Value in '000' US \$)

CMS Components							
SITC CODE NO.	DESCRIPTION OF PRODU- CTS	PERIODS	Change in Exports	World Trade Effect CMS Compo- nents	Commo- dity Composi- tion Effect	Market Distri- bution effect	Competiti- veness effect
A - Traditional Sector							
0.0	Food and live animals	1969-71 - 1979-81	115.30 (100.00)	121.42 (105.31)	252.65 (219.12)	-232.40 (-201.56)	-26.37 (-22.87)
		1979-81 - 1985-87	28.07 (100.00)	21.61 (76.98)	38.96 (138.80)	-42.90 (-152.83)	10.40 (37.05)
1.0	Beverages and tobacco	1969-71 - 1979-81	0.03 (100.00)	1.13 (3766.66)	373.86 (1246200.00)	-372.70 (-1242333.33)	-2.26 (-7533.33)
		1979-81 - 1985-87	-6.07 (100.00)	--	--	0.88 (-1257.14)	-0.95 (1357.14)
2.0	Crude materials inedi- ble except fuels	1969-71 - 1979-81	46.00 (100.00)	211.44 (459.65)	40.23 (87.46)	64.28 (139.74)	-269.95 (-586.85)
		1979-81 - 1985-87	327.94 (100.00)	--	--	42.86 (13.07)	285.08 (86.93)
3.0	Mineral fuels lubrica- nts and related mate- rials	1969-71 - 1979-81	93.44 (100.00)	28.69 (30.70)	1022.95 (1094.77)	-1012.70 (-1083.80)	54.50 (58.33)
		1979-81 - 1985-87	-77.86 (100.00)	0.87 (-1.12)	70.17 (-90.12)	-97.19 (124.83)	-51.71 (66.41)
4.0	Animal vegetable oils and fats	1969-71 - 1979-81	0.0 (0.0)	--	236.80 (0.0)	-236.80 (0.0)	-
		1979-81 - 1985-87	1.93 (100.00)	--	36.70 (1901.55)	-36.70 (-1901.55)	1.93 (100.00)
6.0	Manufactured goods classified by ma- terials	1969-71 - 1979-81	420.15 (100.00)	395.55 (94.15)	1090.24 (259.49)	-896.67 (-213.42)	-168.97 (-40.22)
		1979-81 - 1985-87	406.18 (100.00)	--	--	401.69 (98.89)	4.49 (1.11)

Appendix-IV.1.7 contd...

B - Non-Traditional Sector

5.0 Chemicals	1969-71 - 1979-81	3.49 (100.00)	5.16 (147.85)	9.35 (267.91)	-9.66 (-276.79)	-1.36 (-38.97)
	1979-81 - 1985-87	10.66 (100.00)	--	--	6.34 (59.47)	4.32 (40.53)
7.0 Machinery and transport equipment	1969-71 - 1979-81	2.94 (100.00)	4.49 (152.72)	--	--	-1.55 (-52.72)
	1979-81 - 1985-87	6.46 (100.00)	2.90 (44.89)	2.75 (42.57)	--	0.81 (12.54)
8.0 Miscellaneous manufactured articles	1969-71 - 1979-81	110.09 (100.00)	69.11 (62.78)	--	--	40.98 (37.22)
	1979-81 - 1985-87	374.13 (100.00)	68.53 (18.32)	353.95 (94.61)	-270.89 (-72.41)	222.54 (59.48)

Source : Commodity Trade Statistics, United Nations, Year Book of International Trade Statistics,
 Nations, Various Issues.

United

Appendix-IV.1.8 : An Analysis of Export Performance of Singapore : 1969-71 - 1979-81 and 1979-81 - 1985-87

(Value in '000' US \$)

SITC Code No.	Commodities	Period	Change in export	CMS Components			
				World trade effect	Commo- dity composi- tion effect	Market distri- bution effect	Competiti- veness effect
A - Traditional Sector							
0.0	Food and live animals	1969-71 - 1979-81	178.92 (100.00)	132.57 (74.09)	471.68 (263.63)	-427.41 (-238.88)	2.08 (1.16)
		1979-81 - 1985-87	144.28 (100.00)	91.89 (63.68)	31.55 (21.87)	-43.16 (-29.91)	64.00 (44.36)
1.0	Beverages and tobacco	1969-71 - 1979-81	13.88 (100.00)	3.34 (24.06)	613.37 (4419.09)	-608.82 (-4386.31)	5.99 (43.16)
		1979-81 - 1985-87	57.22 (100.00)	31.42 (54.91)	95.33 (166.60)	-122.23 (-213.61)	52.70 (92.10)
2.0	Crude materials inedible except fuels	1969-71 - 1979-81	233.70 (100.00)	277.61 (118.79)	613.37 (262.46)	-601.39 (-257.33)	-55.89 (-23.92)
		1979-81 - 1985-87	145.24 (100.00)	—	—	93.22 (64.18)	52.02 (35.82)
3.0	Mineral fuels lubricants and related materials	1969-71 - 1979-81	4338.75 (100.00)	1296.25 (29.88)	38424.18 (885.60)	-37487.81 (-864.02)	2106.13 (48.54)
		1979-81 - 1985-87	-528.91 (100.00)	39.27 (-7.42)	83.95 (-15.87)	-1398.50 (264.40)	746.37 (-141.11)
4.0	Animal vegetable oils and fats	1969-71 - 1979-81	-63.58 (100.00)	245.69 (-386.43)	167.72 (-263.79)	-305.17 (479.98)	-171.82 (270.24)
		1979-81 - 1985-87	-9.77 (100.00)	-17.81 (182.29)	-1466.27 (15007.88)	1503.40 (-15387.92)	-29.09 (297.75)
6.0	Manufactured goods classified by materials	1969-71 - 1979-81	392.73 (100.00)	283.61 (72.21)	958.74 (244.12)	-851.49 (-216.81)	1.87 (0.48)
		1979-81 - 1985-87	288.41 (100.00)	—	—	234.89 (81.44)	53.52 (18.56)

Appendix-IV.1.A Contd...

B - Non-Traditional Sector

5.0	Chemicals	1969-71 - 1979-81	290.76 (100.00)	83.08 (28.57)	2512.44 (864.10)	-2479.98 (-852.93)	175.22 (60.26)
		1979-81 - 1985-87	727.51 (100.00)	19.09 (2.62)	40.38 (5.55)	345.32 (47.47)	322.72 (44.36)
7.0	Machinery and transport equipment	1969-71 - 1979-81	1940.00 (100.00)	1100.15 (56.71)	—	—	839.85 (43.29)
		1979-81 - 1985-87	6784.73 (100.00)	737.33 (10.87)	679.13 (10.01)	1156.28 (17.04)	4211.99 (62.08)
8.0	Miscellaneous manufactured articles	1969-71 - 1979-81	657.54 (100.00)	470.08 (71.49)	—	—	187.46 (28.51)
		1979-81 - 1985-87	886.96 (100.00)	408.49 (46.05)	-54.02 (-6.09)	583.93 (65.84)	-51.44 (-5.80)

Source : Commodity Trade Statistics, United Nations, Year Book of International Trade Statistics, United Nations, Various Issues.

Appendix-IV.1.9 : An Analysis of Export Performance of Turkey : 1969-71 - 1979-81 and 1979-81 - 1985-87

(Value in '000' US \$)

SITC Code No.	Commodities	Period	Change in export	CMS Components			
				World trade effect	Commo- dity composi- tion effect	Market distri- bution effect	Competiti- veness effect
A - <u>Traditional Sector</u>							
0.0	Food and live animals	1969-71 - 1979-81	317.94 (100.00)	384.41 (120.91)	663.41 (208.66)	-699.37 (-219.97)	-30.51 (-9.60)
		1979-81 - 1985-87	412.69 (100.00)	62.15 (15.06)	197.92 (47.96)	-124.01 (-30.05)	276.63 (67.03)
1.0	Beverages and tobacco	1969-71 - 1979-81	190.23 (100.00)	189.18 (99.45)	1236.83 (650.18)	-1177.35 (-618.91)	-58.43 (-30.72)
		1979-81 - 1985-87	10.00 (100.00)	—	—	74.71 (747.10)	-64.71 (-647.10)
2.0	Crude materials inedible except fuels	1969-71 - 1979-81	158.75 (100.00)	351.28 (221.29)	232.48 (146.44)	-240.93 (-151.77)	-184.08 (-115.96)
		1979-81 - 1985-87	87.08 (100.00)	—	—	148.26 (170.26)	-61.18 (-70.26)
3.0	Mineral fuels lubricants and related materials	1969-71 - 1979-81	333.87 (100.00)	161.74 (48.44)	3369.61 (1009.26)	-3403.84 (-1019.51)	206.36 (61.81)
		1979-81 - 1985-87	543.79 (100.00)	4.90 (0.90)	122.18 (22.47)	-244.36 (-44.94)	661.07 (121.57)
4.0	Animal vegetable oils and fats	1969-71 - 1979-81	14.65 (100.00)	1.51 (10.31)	590.95 (4033.78)	-591.66 (-4038.63)	13.85 (94.54)
		1979-81 - 1985-87	-10.66 (100.00)	-5.06 (47.47)	10.60 (-99.43)	1.02 (-9.57)	-17.22 (161.53)
6.0	Manufactured goods classified by materials	1969-71 - 1979-81	208.75 (100.00)	485.27 (232.46)	521.93 (250.03)	-602.09 (-288.43)	-196.36 (-94.06)
		1979-81 - 1985-87	929.77 (100.00)	—	—	210.87 (22.68)	718.90 (77.32)

Appendix-IV.1.9 Contd...

B - Non-Traditional Sector

5.0 Chemicals	1969-71 - 1979-81	38.53 (100.00)	24.59 (63.82)	975.36 (2531.43)	-977.04 (-2535.79)	15.62 (40.54)
	1979-81 - 1985-87	103.34 (100.00)	--	--	101.42 (98.14)	1.92 (1.86)
7.0 Machinery and transport equipment	1969-71 - 1979-81	29.93 (100.00)	3.36 (11.23)	--	--	26.57 (88.77)
	1979-81 - 1985-87	65.04 (100.00)	--	--	32.08 (49.32)	32.96 (50.68)
8.0 Miscellaneous manufactured articles	1969-71 - 1979-81	224.38 (100.00)	48.02 (21.40)	--	--	176.36 (78.60)
	1979-81 - 1985-87	1646.97 (100.00)	123.23 (7.48)	129.45 (7.86)	--	1394.29 (84.66)

Source : Commodity Trade Statistics, United Nations, Year Book of International Trade Statistics,
United Nations, Various Issues.

Appendix-IV.2 : Sub-Sector wise Competitiveness of Exports in Selected Newly Industrializing Developing Countries : 1969-71 - 1979-81 and 1979-81 - 1985-87

(Value in '000' US \$)

SITC Sub-Sectors Nos	Argentina		Brazil		India	
	1969-71- 1979-81	1979-81- 1985-87	1969-71- 1979-81	1979-81- 1985-87	1969-71- 1979-81	1979-81- 1985-87
<u>A - Traditional Sector</u>						
00 Live animals for food	-3.62	-2.95	--	0.30	-3.60	7.83
01 Meat and preparations	-1734.91	-102.49	14.90	-101.35	-7.46	--
02 Dairy products, birds eggs	-4.86	-6.78	0.03	-1.37	-267.54	-239.18
03 Fish and preparations	-10.05	-34.19	1.97	103.68	-6846.05	18.34
05 Vegetables and fruits	-106.76	-121.40	3.54	-282.85	-20.09	-84.95
06 Sugar and preparations and honey	-7.92	-66.70	1.85	-43.43	-174.15	-17.32
07 Coffee, tea, coca and spices	-2.77	-20.79	41.80	18.25	-61.08	-46.84
08 Feeding stuffs for animals	-163.81	-59.44	5.19	117.93	-7.81	-0.43
09 Miscellaneous edible products	-2.85	7.59	0.55	6.94		
0.0 Food and live animals	-2689.90	-581.39	71.00	-175.00	-7511.12	-217.17
11 Beverages	0.29	-1.67	1.01	-102.75	--	0.54
12 Tobacco and manufacturers	10.68	-39.19	221.19	-16.27	-22.97	-96.76
1.0 Beverages and tobacco	10.97	-40.86	222.20	-119.02	-22.97	-96.22
21 Hides, skins, furs undressed	-98.01	-6.75	15.54	-1.24	-3.26	-11.08
22 Oil seeds oleaginous frt	-0.22	4.29	23.49	226.74	-1.76	-2.20
23 Rubber crude	-5.09	1.28	1.88	-14.56	-0.07	44.41
24 Cork and wood	-0.08	30.49	13.42	25.52	-17.14	-15.33
25 Pulp and waste paper	--	43.58	--	64.96	--	-33.80
26 Textile fibres and waste	-120.12	-233.29	82.84	26.81	-17.17	282.10
27 Crude fertilizers, minerals, nes	-9.63	2.69	5.10	60.97	-22.99	319.98
28 Metalliferrous ores, scrap	-10.55	10.19	286.37	194.31	-277.96	616.62
29 Crude animals, vegetable, mat, nes.	405.17	-50.36	17.23	-11.33	-77.56	-1137.64
2.0 Crude material inedible except fuels	161.47	-197.88	445.90	572.18	-417.91	63.06

Appendix-IV.2 Contd..

32	Coal, coke and briquettes	--	-10.10	--	0.22	-1.41	2.56
33	Petroleum and products	460.74	-203.88	657.58	144.98	-140.13	63.24
34	Gas, natural and manufactured	--	5.54	--	-0.51	--	--
35	Electric current	--	--	--	--	--	--
3.0	Mineral fuels, lubricants and related materials	460.74	-208.44	657.58	144.69	-141.54	65.80
41	Animal oils and fats	-3.50	-6.48	14.29	201.44	--	0.57
42	Fixed vegetable oil, fats	-154.13	62.27	3.37	1.64	1.79	-20.87
43	Processed animal, vegetable oils, etc.	--	1.41	--	--	0.04	-1.66
4.0	Animal vegetable oils and fats	-157.63	57.20	17.66	203.08	1.83	-21.96
61	Leather, dressed fur, etc	52.42	7.30	117.60	-20.78	-69.84	78.02
62	Rubber manufactures, nes	1.12	-0.33	14.71	-28.51	-0.83	35.79
63	Wood, cork manufactures, nes	--	-0.21	170.80	-6.21	-0.58	-50.87
64	Paper, paper board and manufactures	1.93	0.74	120.53	-44.21	-0.33	-2.34
65	Textile, yarn, fabrics, etc.	-1.80	-2.06	114.25	44.14	-119.25	152.31
66	Non-metal minerals manufactures, nes	-1.04	0.01	208.28	-14.23	-71.79	740.80
67	Iron and steel	64.99	79.79	277.15	1484.96	-32.68	-192.50
68	Non-ferrous metals	3.62	-5.96	9.83	-145.54	-0.79	0.30
69	Metal manufactures	7.94	5.76	28.57	-3.21	-9.97	-121.15
6.0	Manufactured goods classified by materials	129.18	85.04	1061.86	1266.41	-306.06	640.36

Appendix-IV.2 Contd...

B - Non-Traditional Sector							
51	Organic chemicals	24.11	-75.66	55.74	-2.89	-2.14	28.38
52	Inorganic chemicals	-0.48	-1.90	--	6.72	--	-11.41
53	Dyes, tranning, colour products	21.89	-20.93	2.86	-0.58	-0.52	17.12
54	Medicinal, pharmaceutical products	13.96	-219.89	16.84	-183.45	-1.32	-53.33
55	Perfume, cleaning etc. products	4.83	-6.14	38.60	-18.03	-1.90	1.26
56	Fertilizers manufactured	1.06	-0.41	1.23	-3.47	-0.10	-1.00
57	Explosives, pyrotech products	--	0.08	0.32	1.21	--	-0.27
58	Plastic materials, nes	2.55	4.09	1.47	15.25	-0.08	6.01
59	Chemicals materials, nes	24.64	-27.64	8.90	11.24	-0.40	-1.18
5.	Chemicals	92.56	-348.40	125.96	-174.00	-6.46	-14.42
71	Power generating equipment	62.67	-21.69	536.44	-335.78	20.38	-16.60
72	Machinery for special industries	31.03	-38.70	-388.20	134.43	36.62	1.56
73	Metal working machinery	-1.90	13.87	654.61	-6.78	8.18	-11.51
74	General industrial machinery, nes	--	-21.87	--	161.41	--	-31.84
75	Office machinery and equipments	--	-136.98	--	-448.84	--	-23.29
76	Telecommunication, sound equipments	--	-2.03	--	281.13	--	0.02
77	Electric machinery nes etc.	--	-2.49	--	-34.97	--	-32.46
78	Road vehicles	--	-12.77	--	554.68	--	-19.30
79	Other transport equipment	--	-73.72	--	159.55	--	-149.44
7.0	Machinery and transport equipment	91.80	-296.38	802.85	464.83	65.18	-282.86
81	Plumbing, heating, lighting equipment	-0.68	1.79	-0.32	14.63	1.35	-19.04
82	Furniture and fixtures	-4.60	-0.30	-16.57	9.69	4.85	-2.27
83	Travel goods and hand bags	-31.91	0.33	-16.93	-30.19	69.48	7.74
84	Clothing	-41.17	2.28	-60.47	63.98	269.09	-35.87
85	Footwear	1.59	21.36	-153.65	1067.58	38.53	22.19

Appendix-IV.2 Contd..

86	Watches and clocks	--	11.47	1.33	--	-7.34	--
87	Precision instruments nes	--	-1.75	--	-39.51	--	-6.31
88	Photo equipments, optical goods etc.	--	-0.62	--	69.24	--	-4.43
89	Miscellaneous manufactured goods nes	-37.96	2.98	-13.26	1.38	87.98	-33.15
8.0	Miscellaneous manufacturing articles	-114.73	37.54	-259.87	1156.80	463.94	-71.14

Appendix-IV.2 contd...

(Value in '000' US \$)

		Israel		Korea Republic		Malaysia		Pakistan	
A - Traditional Sector									
00	Live animal for food	-0.31	6.13	-	22.74	0.26	-1538.33	--	--
01	Meat and preparations	-4.20	-1.28	-	24.76	0.21	-55.53	--	-0.09
02	Dairy products, birds eggs	-2.07	-2.86	-	-	2.20	-535.94	--	--
03	Fish and preparations	-0.42	-2.34	386.35	-15.76	45.27	2782.79	-18.66	7.92
04	Cereals and preparations	-0.96	0.94	3.78	71.24	-0.40	698.53	-0.68	2.31
05	Vegetables and fruits	-222.11	138.53	139.19	583.78	19.58	-571.81	-0.47	-3.68
06	Sugar and preparations and honey	-0.10	1.02	1.13	224.13	9.99	-3403.50	-0.84	-1.23
07	Coffee, tea, coca and spices	-1.02	-2.63	1.33	68.98	--	--	-0.80	1.70
08	Feeding stuffs for animals	-1.84	-0.50	-	26.70	1.47	-147.25	-4.92	3.47
09	Miscellaneous edible products	-3.56	10.94	2.84	-311.46	2.38	3011.44	--	--
0.0	Food and Live Animals	-236.59	147.95	534.62	695.11	80.96	240.40	-26.37	10.40
11	Beverages	--	-0.36	11.62	22.24	--	7.05	--	--
12	Tobacco and manufacturers	-1.66	-	48.66	-88.34	4.56	-0.40	-2.26	-0.95
1.0	Beverages and Tobacco	-1.66	-0.36	60.28	-66.10	4.56	6.65	-2.26	-0.95
21	Hides, skins, furs undressed	--	-	-	-0.39	-0.78	0.40	--	-2.26
22	Oil seeds oleaginous frt	9.57	0.72	-	-0.38	-2.66	-83.98	--	-2.47
23	Rubber crude	--	-	-	-3.07	-186.25	-189.04	--	--
24	Cork and wood	--	-	0.08	20.68	-102.65	1885.87	--	-0.40
25	Pulp and waste paper	3.30	-37.39	-	0.19	--	1.31	--	--
26	Textile fibres and waste	32.69	-6.33	15.28	-10.39	-0.01	-4.46	-201.45	310.83
27	Crude fertilizers, minerals, nes	58.04	1.66	11.90	0.64	-1.53	4.47	-13.54	-2.42
28	Metalliferrous ores, scrap	17.52	3.18	26.04	12.79	-35.97	94.95	-2.68	4.92
29	Crude animals, vegetable, mat, nes.	64.70	-9.19	25.86	3.11	-2.64	5.63	-52.28	-23.12
2.0	Crude material inedible except fuels	185.80	-47.35	79.16	23.18	-332.49	1715.15	-269.95	285.08

Appendix-IV.2 Contd...

32	Coal, coke and briquettes	--	-	-	-	-	-	-	-
33	Petroleum and products	-238.51	45.94	21.72	1.82	-	0.22	54.50	-51.71
34	Gas, natural and manufactured	--	-	49.71	492.65	1706.17	992.01	-	-
35	Electric current	--	-	-	-3.41	52.51	1021.80	-	-
3.0	Mineral fuels, lubricants and related materials	-238.51	45.94	71.43	491.06	1758.68	2014.03	54.50	-51.71
41	Animal oils and fats	--	0.10	-	0.03	-	0.31	-	-
42	Fixed vegetable oil, fats	-6.15	0.50	7.67	-3.10	265.64	261.22	-	1.93
43	Processed animal, vegetable oils, etc.	--	0.15	-	-1.08	245.17	3.23	-	-
4.0	Animal Vegetable Oils and Fats	-6.15	0.75	7.67	-4.15	510.81	264.76	-	1.93
61	Leather, dressed fur, etc	1.77	2.79	8.00	321.62	-0.32	3.60	-35.77	-1.84
62	Rubber manufactures, nes	11.37	-33.78	38.54	110.61	-26.72	25.04	-	0.01
63	Wood, cork manufactures, nes	1.89	-0.68	44.45	-946.11	-124.72	39.90	-	0.02
64	Paper, paper board and manufactures	-	17.73	28.68	409.23	-11.08	38.51	-0.15	-0.02
65	Textile, yarn, fabrics, etc.	13.74	442.18	1294.98	1896.31	-43.90	-21.65	-131.15	6.51
66	Non-metal minerals manufactures, nes	328.81	399.84	85.53	521.53	-26.44	84.91	-0.54	0.03
67	Iron and steel	0.87	-18.92	525.87	-1252.60	-16.77	160.70	-	-0.52
68	Non-ferrous metals	2.72	-6.40	21.24	285.89	-670.38	72.49	-	-
69	Metal manufactures	3.75	49.22	168.70	554.52	-34.24	22.21	-1.36	0.30
6.0	Manufactured goods classified by materials	364.92	851.98	2215.99	1901.00	-954.57	425.71	-168.97	4.49

Appendix-IV.2 Contd...

B - Non-Traditional Sector

51	Organic chemicals	40.36	4.85	167.27	-8.45	-3.73	74.04	-0.35	-5.85
52	Inorganic chemicals	--	-75.64	-	-5.28	-6.83	3.62	-	0.54
53	Dyes, tanning, colour products	1.16	-3.15	4.30	3.96	-2.10	3.13	-	0.08
54	Medicinal, pharmaceutical products	6.45	104.65	90.10	4.58	-	-	-0.85	0.34
55	Perfume, cleaning etc. product	5.23	4.25	3.44	-0.89	-6.75	5.42	-	-0.15
56	Fertilizers manufactured	125.05	68.84	-36.08	0.06	-2.41	20.20	-	7.91
57	Explosives, pyrotech products	--	-68.22	-	0.49	-	0.19	-	-
58	Plastic materials, nes	23.67	-205.26	56.34	34.45	-1.16	4.24	-	0.82
59	Chemicals materials, nes	19.62	-99.73	18.08	3.83	-2.81	73.10	-0.16	0.63

5.	Chemicals	221.54	-269.41	303.45	32.75	-25.79	183.94	-1.36	4.32
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71	Power generating equipment	129.87	1495.38	-470.51	111.88	-141.66	7.64	-0.53	0.10
72	Machinery for special industries	-78.38	341.37	2912.76	66.57	2003.56	12.56	0.12	0.02
73	Metal working machinery	166.85	168.95	-907.93	-2.69	-267.76	0.05	-1.54	-0.03
74	General industrial machinery, nes	--	-126.39	-	351.11	-	21.49	-	0.11
75	Office machinery and equipments	--	-941.77	-	1202.94	-	-7.63	-	0.18
76	Telecommunication, sound equipments	--	940.62	-	1409.01	-	189.04	-	0.02
77	Electric machinery nes etc.	--	370.18	-	1363.73	-	-265.95	-	-0.09
78	Road vehicles	--	33.15	-	2506.31	-	-15.10	-	0.60
79	Other transport equipment	--	-2241.17	-	518.58	-	-1.10	-	-0.10

7.0	Machinery and Transport Equipment	218.34	-30.76	1534.32	7527.44	1594.14	-59.00	-1.95	0.81
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81	Plumbing, heating, lighting equipment	0.23	-1.41	0.60	47.70	1.89	1.63	-	-0.03
82	Furniture and fixtures	4.44	-3.85	39.17	65.79	21.33	-4.35	-	-0.35
83	Travel goods and hand bags	2.20	0.23	137.46	260.72	2.61	9.08	-	3.19
84	Clothing	112.20	-62.36	2554.61	-930.46	100.54	341.51	19.37	222.56

Appendix-IV.2 Contd...

85	Footwear	3.20	4.45	342.13	49.82	66.99	-3.59	11.51	-1.26
86	Watches and clocks	-2.51	0.20	-13.55	-	-3.49	0.27	-2.22	-
87	Precision instruments nes	-	55.09	-	62.74	-	40.32	-	0.42
88	Photo equipments, optical goods etc.	-	12.24	-	136.18	-	14.68	-	0.79
89	Miscellaneous manufactured goods nes	22.42	-88.16	740.09	1474.78	41.24	44.11	12.32	-2.78
8.0	Miscellaneous manufacturing articles	142.18	-83.57	3800.51	1167.27	231.11	443.66	40.98	222.54

Appendix-IV.2 Contd...

(Value in '000' US \$)

		Singapore		Turkey	
<u>A - Traditional Sector</u>					
00	Live animals for food	0.09	0.93	-0.03	-0.26
01	Meat and preparations	0.04	0.56	-0.10	-12.48
02	Dairy products, birds eggs	0.02	-5.37	-	0.96
03	Fish and preparations	0.52	16.85	-3.06	43.52
04	Cereals and preparations	0.28	-8.22	0.33	15.75
05	Vegetables and fruits	0.31	-3.43	-26.18	201.13
06	Sugar and preparations and honey	0.04	-2.56	0.02	12.47
07	Coffee, tea, coca and spices	0.44	-19.18	-0.36	17.12
08	Feeding stuffs for animals	0.28	28.76	-0.88	0.50
09	Miscellaneous edible products	0.06	55.66	-0.25	-2.08
0.0	Food and live animals	2.08	64.00	-30.51	276.63
11	Beverages	4.48	28.24	-0.14	-6.40
12	Tobacco and manufacturers	1.51	24.46	-58.29	-58.31
1.0	Beverages and tobacco	5.99	52.70	-58.43	-64.71
21	Hides, skins, furs undressed	-0.51	-62.83	4.94	-0.26
22	Oil seeds oleaginous frt	-5.52	-0.60	2.58	1.46
23	Rubber crude	-34.98	-680.14	-	-1.39
24	Cork and wood	-4.11	288.44	1.74	0.36
25	Pulp and waste paper	-1.38	65.93	-	-
26	Textile fibres and waste	-1.54	47.02	119.51	-141.14
27	Crude fertilizers, minerals, nes	-0.63	-101.01	17.74	56.12
28	Metalliferous ores, scrap	-1.79	239.78	16.76	25.66
29	Crude animals, vegetable, mat, nes.	-5.43	255.43	20.81	-1.99
2.0	Crude material inedible except fuels	-55.89	52.02	184.08	61.18

Appendix-IV.2 contd...

32	Coal, coke and briquettes	-	-0.31	14.40	-
33	Petroleum and products	2080.34	739.76	191.96	661.07
34	Gas, natural and manufactured	-	-	-	-
35	Electric current	25.79	6.92	-	-
3.0	Mineral fuels, lubricants and related materials	2106.13	746.32	206.36	661.07
41	Animal oils and fats	0.15	-	-	2.80
42	Fixed vegetable oil, fats	-173.04	-33.89	13.85	-20.02
43	Processed animal, vegetable oils, etc.	1.07	4.80	-	-
4.0	Animal vegetable oils and fats	-171.82	-29.09	13.85	-17.22
61	Leather, dressed fur, etc.	0.03	-0.58	-0.11	-20.53
62	Rubber manufactures, nes	0.02	6.41	-	-133.59
63	Wood, cork manufactures, nes	0.12	-68.09	-68.94	-22.37
64	Paper, paper board and manufactures	0.07	123.07	-38.62	-25.77
65	Textile, yarn, fabrics, etc.	0.32	-194.73	-62.51	-1540.73
66	Non-metal minerals manufactures, nes	0.17	-206.79	-1.59	-592.69
67	Iron and steel	0.21	83.65	-11.44	3708.71
68	Non-ferrous metals	0.08	102.09	-10.01	-392.77
69	Metal manufactures	0.85	208.49	-3.14	-261.36
6.0	Manufactured goods classified by materials	1.87	53.52	-196.36	718.90

Appendix-IV.2 Contd...

B - Non-Traditional Sector

51	Organic chemicals	46.07	79.10	8.64	-0.06
52	Inorganic chemicals	-	5.22	-	-0.03
53	Dyes, tanning, colour products	10.31	-0.64	-	-
54	Medicinal, pharmaceutical products	18.25	15.20	1.12	0.08
55	Perfume, cleaning etc. product	31.15	-81.46	5.26	-
56	Fertilizers manufactured	-	3.66	-	-0.04
57	Explosives, pyrotech products	-	0.61	-	1.94
58	Plastic materials, nes	47.29	212.83	-	0.03
59	Chemicals materials, nes	22.15	88.20	0.60	-

5.	Chemicals	175.22	322.72	15.62	1.92
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71	Power generating equipment	102.81	9.40	379.57	-9.04
72	Machinery for special industries	911.81	8.98	-353.00	1.84
73	Metal working machinery	-174.77	0.19	-	1.61
74	General industrial machinery, nes	-	229.38	-	4.83
75	Office machinery and equipments	-	2310.16	-	0.89
76	Telecommunication, sound equipments	-	-80.91	-	7.22
77	Electric machinery nes	-	1650.41	-	13.08
78	Road vehicles	-	29.00	-	15.72
79	Other transport equipment	-	55.38	-	-3.19

7.0	Machinery and Transport Equipment	839.85	4211.99	26.57	32.96
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81	Plumbing, heating, lighting equipment	1.07	-3.09	-	6.83
82	Furniture and fixtures	3.78	-54.30	-	-1.26
83	Travel goods and hand bags	0.71	-2.79	1.30	14.34
84	Clothing	140.60	-37.95	159.10	1344.28

Appendix-IV.2 Contd...

85	Footwear	5.27	1.02	1.39	1.34
86	Watches and clocks	-8.73	-	-0.59	-
87	Precision instruments nes	-	69.13	-	4.57
88	Photo equipments, optical goods etc.	-	-147.09	-	-0.65
89	Miscellaneous manufactured goods nes	44.76	123.63	15.16	24.84
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8.0	Miscellaneous manufacturing articles	187.46	-51.44	176.36	1394.29

Note : Competitiveness for outlined product groups has been measured by using the following formula:

$$(X_t - X_i) = \frac{\sum_{j=1}^n r_{ij} \times ij}{n}$$

Source: Commodity Trade Statistics, United Nations, Year Book of International Trade Statistics, United Nations, Monthly Statistics of Foreign Trade of India, DGCI & S, Calcutta, Various issues.

Appendix-IV.3 : Cost Structure in Different NICs : 1969-71, 1979-81 and 1985-87

SITC Code No.	Commodities	Argentina					
		L/O			M/O		
		1969-71	1979-81	1985-87	1969-71	1979-81	1985-87
0.0	Food and live animals	0.0020	0.00010	-	-	-	-
1.0	Beverages and tobacco	0.0019	0.00005	-	-	-	-
2.0	Crude materials, inedible except fuels	-	-	-	-	-	-
3.0	Mineral fuels, lubricants and related materials	-	-	-	-	-	-
4.0	Animal vegetable, oils and fats	-	-	-	-	-	-
5.0	Chemicals	0.0039	0.0016	-	-	-	-
6.0	Manufactured goods classi- fied by materials	0.0024	0.0001	-	-	-	-
7.0	Machinery and transport equipment	0.0034	0.00010	0.0219	-	-	-
8.0	Miscellaneous manufactured articles	0.2000	0.0002	-	-	-	-
Overall		0.0027	0.00010	0.0879	-	-	-

Appendix-IV.3 Contd...

SITC Code No.	Commodities	Brazil			
		L/O		M/O	
		1969-71	1985-87	1969-71	1985-87
0.0	Food and live animals	0.000027	0.00021	0.7094	0.6425
1.0	Beverages and tobacco	0.000034	0.00027	0.6426	0.4580
2.0	Crude materials, inedible except fuels	0.000034	-	0.3253	-
3.0	Mineral fuels, lubricants and related materials	0.00012	0.000013	0.2499	0.7424
4.0	Animal vegetable, oils and fats	-	0.00047	-	0.3547
5.0	Chemicals	0.000010	0.00010	0.6462	0.5845
6.0	Manufactured goods classi- fied by materials	0.000044	0.00035	0.6580	0.5670
7.0	Machinery and transport equipment	0.000035	0.000076	0.6990	0.8848
8.0	Miscellaneous manufactured articles	0.000064	0.00094	0.4385	0.4249
Overall		0.000035	0.00017	0.6480	0.7398

Appendix-IV.3 Contd...

SITC Code No.	Commodities	India					
		L/O			M/O		
		1969-71	1979-81	1985-87	1969-71	1979-81	1985-87
0.0	Food and live animals	0.1901	0.1081	1.5306	0.8815	0.9032	0.7982
1.0	Beverages and tobacco	0.3224	0.2552	0.0281	0.7207	0.8150	0.9705
2.0	Crude materials, inedible except fuels	-	-	-	0.1469	0.2287	0.1738
3.0	Mineral fuels, lubricants and related materials	0.1049	0.0824	0.0500	0.6244	0.6514	0.5301
4.0	Animal vegetable, oils and fats	0.2049	0.1184	0.0774	0.6326	0.7684	0.5089
5.0	Chemicals	0.0782	0.0398	0.1255	0.7479	0.8236	0.4514
6.0	Manufactured goods classi- fied by materials	0.1987	0.0881	0.1200	0.7525	0.7983	0.6819
7.0	Machinery and transport equipment	0.1532	0.0788	0.1999	0.7426	0.7546	0.3779
8.0	Miscellaneous manufactured articles	0.3103	0.1277	0.0312	0.6864	0.7357	0.9327
Overall		0.1646	0.0850	0.0957	0.7426	0.7731	0.6633

Appendix-IV.3 Contd...

SITC Code No.	Commodities	Israel				
		L/O			M/O	
		1969-71	1979-81	1985-87	1969-71	1985-87
0.0	Food and live animals	0.000020	0.000065	0.0145	0.1568	0.7110
1.0	Beverages and tobacco	0.000001	-	0.0113	0.2751	0.5906
2.0	Crude materials, inedible except fuels	0.000003	-	-	0.1265	-
3.0	Mineral fuels, lubricants and related materials	-	-	-	-	-
4.0	Animal vegetable, oils and fats	0.000005	-	0.0154	0.5086	0.7346
5.0	Chemicals	0.000002	0.000001	0.0113	0.9393	0.5761
6.0	Manufactured goods classi- fied by materials	0.000004	0.000002	0.0185	0.5578	0.5973
7.0	Machinery and transport equipment	0.000004	0.000003	0.0170	0.4247	0.5394
8.0	Miscellaneous manufactured articles	0.000006	0.000003	0.0176	0.1644	0.5143
Overall		0.000006	0.000002	0.0165	0.5996	0.5954

Appendix-IV.3 Contd...

SITC Code NOS.	Commodities	Korea Republic					
		L/O			M/O		
		1969-71	1979-81	1985-87	1969-71	1979-81	1985-87
0.0	Food and live animals	0.0503	0.0303	0.0175	0.7235	0.7079	0.7099
1.0	Beverages and tobacco	0.0252	0.0148	0.0088	0.4165	0.3527	0.3550
2.0	Crude materials, inedible except fuels	0.1826	0.0916	0.0506	0.3330	0.3196	0.3747
3.0	Mineral fuels, lubricants and related materials	0.0223	0.0120	0.0087	0.7435	0.8504	0.7478
4.0	Animal vegetable, oils and fats	0.4061	0.1948	0.0515	0.5573	0.5540	0.5844
5.0	Chemicals	0.0406	0.0191	0.0103	0.6182	0.6344	0.6366
6.0	Manufactured goods classi- fied by materials	0.0893	0.0473	0.0263	0.6656	0.6634	0.6464
7.0	Machinery and transport equipment	0.1023	0.0549	0.0218	0.0803	0.7155	0.6467
8.0	Miscellaneous manufactured articles	0.1532	0.0630	0.0321	0.5889	0.5848	0.5898
Overall		0.0795	0.0431	0.0223	0.5612	0.6696	0.6454

Appendix-IV.3 Contd...

SITC Code No.	Commodities	Malaysia					
		L/O			M/O		
		1969-71	1979-81	1985-87	1969-71	1979-81	1985-87
0.0	Food and live animals	0.0293	0.0316	0.0099	0.7973	0.7812	0.8428
1.0	Beverages and tobacco	0.0342	0.0275	0.0156	0.6376	0.6468	0.5050
2.0	Crude materials, inedible except fuels	0.1175	-	-	0.3656	-	0.4563
3.0	Mineral fuels, lubricants and related materials	0.0015	0.0140	0.0001	0.8754	0.8591	0.2376
4.0	Animal vegetable, oils and fats	0.1211	0.2999	0.4503	0.4947	0.2875	-
5.0	Chemicals	0.0422	0.0460	0.0069	0.6633	0.6409	0.5642
6.0	Manufactured goods classi- fied by materials	0.0817	0.0803	0.0286	0.6990	0.6739	0.7108
7.0	Machinery and transport equipment	0.0848	0.0991	0.0198	0.6641	0.6474	0.7700
8.0	Miscellaneous manufactured articles	0.1276	0.1396	0.0490	0.5948	0.5028	0.5951
Overall		0.0647	0.0685	0.0159	0.6950	0.6955	0.6269

Appendix-IV.3 Contd...

SITC Code No.	Commodities	Korea Republic					
		L/D			M/D		
		1969-71	1979-81	1985-87	1969-71	1979-81	1985-87
0.0	Food and live animals	0.0293	0.0316	0.0099	0.7973	0.7812	0.8428
1.0	Beverages and tobacco	0.0342	0.0275	0.0156	0.6376	0.6468	0.5050
2.0	Crude materials, inedible except fuels	0.1175	-	-	0.3656	-	0.4563
3.0	Mineral fuels, lubricants and related materials	0.0015	0.0140	0.0001	0.8754	0.8591	0.2376
4.0	Animal vegetable, oils and fats	0.1211	0.2999	0.4503	0.4947	0.2875	-
5.0	Chemicals	0.0422	0.0460	0.0069	0.6633	0.6409	0.5642
6.0	Manufactured goods classi- fied by materials	0.0817	0.0803	0.0286	0.6990	0.6739	0.7108
7.0	Machinery and transport equipment	0.0848	0.0991	0.0198	0.6641	0.6474	0.7700
8.0	Miscellaneous manufactured articles	0.1276	0.1396	0.0490	0.5948	0.5028	0.5951
Overall		0.0647	0.0685	0.0159	0.6950	0.6955	0.6269

Appendix-IV.3 Contd...

SITC Code NO.	Commodities	Singapore					
		L/O			M/O		
		1969-71	1979-81	1985-87	1969-71	1979-81	1985-87
0.0	Food and live animals	0.0217	0.0125	0.0095	0.8358	0.8424	0.8149
1.0	Beverages and tobacco	0.0309	0.0200	0.0121	0.6656	0.6143	0.5047
2.0	Crude materials, inedible except fuels	0.0528	0.0210	0.0117	0.2270	0.1687	0.4016
3.0	Mineral fuels, lubricants and related materials	0.0013	0.0006	0.0011	0.8858	0.8724	0.8884
4.0	Animal vegetable, oils and fats	0.0629	0.0335	0.0238	0.7271	0.7045	0.6884
5.0	Chemicals	0.0239	0.0148	0.0057	0.5997	0.5554	0.5479
6.0	Manufactured goods classi- fied by materials	0.0510	0.0271	0.3198	0.7326	0.7334	0.6740
7.0	Machinery and transport equipment	0.5442	0.0290	0.0551	0.7456	0.6155	0.2096
8.0	Miscellaneous manufactured articles	0.0869	0.0487	0.0325	0.5629	0.5756	0.5127
Overall		0.0412	0.0183	0.0862	0.7922	0.7351	0.6068

Appendix-IV.3 Contd...

SITC Code No.	Commodities	Turkey					
		L/O			M/O		
		1969-71	1979-81	1985-87	1969-71	1979-81	1985-87
0.0	Food and live animals	31.1280	24.4346	23.5936	0.7774	0.7805	0.7444
1.0	Beverages and tobacco	39.0698	32.5904	23.8384	0.4651	0.5181	0.3232
2.0	Crude materials, inedible except fuels	136.1905	93.4483	64.5455	0.1429	0.1379	0.2273
3.0	Mineral fuels, lubricants and related materials	32.4481	22.7763	15.4534	0.5062	0.6374	0.6603
4.0	Animal vegetable, oils and fats	86.0000	38.7500	50.0000	0.6000	0.6250	0.6667
5.0	Chemicals	35.3333	20.9756	24.5417	0.6417	0.5902	0.6208
6.0	Manufactured goods classi- fied by materials	52.2902	31.4729	26.0502	0.6188	0.5693	0.6378
7.0	Machinery and transport equipment	41.8557	26.1554	22.7679	0.6323	0.6275	0.6324
8.0	Miscellaneous manufactured articles	75.1923	31.4563	28.5039	0.6346	0.6214	0.6614
Overall		44.1534	28.5356	23.7090	0.6201	0.6141	0.6356

Appendix-IV.3 Contd...

SITC Code NO.	Commodities	Rest of the World					
		L/D			M/D		
		1969-71	1979-81	1985-87	1969-71	1979-81	1985-87
0.0	Food and live animals	0.0017	0.0466	0.0167	0.7842	0.9130	0.6490
1.0	Beverages and tobacco	0.0028	0.0567	0.3092	0.4577	0.8700	0.7861
2.0	Crude materials, inedible except fuels	0.0019	0.1607	0.2525	0.0701	0.1627	0.0246
3.0	Mineral fuels, lubricants and related materials	0.0114	0.0170	0.0176	0.6998	0.7593	0.7218
4.0	Animal vegetable, oils and fats	0.0048	0.0479	0.0191	0.5096	0.6424	0.3794
5.0	Chemicals	0.0007	0.0066	0.0040	0.7266	0.9313	0.8924
6.0	Manufactured goods classi- fied by materials	0.0010	0.0258	0.0271	0.6162	0.9498	0.5677
7.0	Machinery and transport equipment	0.0015	0.0143	0.0022	0.5898	0.8909	0.8524
8.0	Miscellaneous manufactured articles	0.0014	0.0278	0.0209	0.3667	0.8310	0.4170
Overall		0.0013	0.0234	0.0119	0.6299	0.9165	0.7435

Note : L = Number of Workers

D = Output in US \$

M = Material Cost in US \$

Source : United Nations, Year Book of Industrial Statistics, Various Issues.

Appendix-IV.4 : Nature of Competitiveness and Cost Structure in Newly Industrializing Developing Countries By Product Categories : 1969-71 - 1979-81 and 1979-81 - 1985-87

		Argentina			
SITC Code No.	Commodities	1969-71 - 1979-81		1979-81 1985-87	
		E	Nature of Competiti-	E	Nature of Competiti-
		O	veness	O	veness
0.0	Food and live animals	L	U	-	U
1.0	Beverages and tobacco	L	F	-	U
2.0	Crude materials, in- edible except fuels	-	F	-	U
3.0	Mineral fuels, lubri- cants and related materials	-	F	-	U
4.0	Animal Vegetable oils and fats	-	U	-	F
5.0	Chemicals	H	F	-	F
6.0	Manufactured goods cla- ssified by materials	H	F	-	U
7.0	Machinery and transport equipment	H	F	H	U
8.0	Miscellaneous manufac- tured articles	L	U	-	F
Overall		H	U	H	U

Appendix-IV.4 Contd...

		Brazil							
		E		E		M		M	
		O		O		O		O	
		1969-71 - 1979-81		1979-81 1985-87		1969-71- 1979-81		1979-81- 1985-87	
SITC Code No.	Commodities	Nature of Competiti- veness		Nature of Competiti- veness		Nature of Competiti- veness		Nature of Competiti- veness	
0.0	Food and live animals	L	F	L	U	L	F	L	U
1.0	Beverages and tobacco	L	F	L	U	H	F	L	U
2.0	Crude materials, in- edible except fuels	L	F	-	F	H	F	-	F
3.0	Mineral fuels, lubri- cants and related materials	L	F	L	F	L	F	H	F
4.0	Animal vegetable oils and fats	-	F	L	F	-	F	L	F
5.0	Chemicals	L	F	L	U	H	F	L	U
6.0	Manufactured goods cla- ssified by materials	L	F	L	F	H	F	L	F
7.0	Machinery and transport equipment	L	F	L	F	H	F	H	F
8.0	Miscellaneous manufac- tured articles	L	F	L	F	H	F	H	F
Overall		L	F	L	F	H	F	L	F

Appendix-IV.4 Contd...

		India							
		E		E		M		M	
		O		O		O		O	
		1969-71 - 1979-81		1979-81 1985-87		1969-71- 1979-81		1979-81- 1985-87	
SITC Code No.	Commodities	Nature of Competiti- veness		Nature of Competiti- veness		Nature of Competiti- veness		Nature of Competiti- veness	
0.0	Food and live animals	H	U	H	U	H	U	H	U
1.0	Beverages and tobacco	H	U	L	U	H	U	H	U
2.0	Crude materials, in- edible except fuels	-	U	-	F	H	U	H	F
3.0	Mineral fuels, lubri- cants and related materials	L	U	H	F	L	U	L	F
4.0	Animal Vegetable oils and fats	H	F	H	U	H	F	H	U
5.0	Chemicals	H	U	H	U	H	U	L	U
6.0	Manufactured goods cla- ssified by materials	H	U	H	F	H	U	H	F
7.0	Machinery and transport equipment	H	F	H	U	H	F	L	U
8.0	Miscellaneous manufac- tured articles	H	F	H	U	H	F	H	U
Overall		H	U	H	F	L	U	L	F

Appendix-IV.4 Contd...

		Israel							
		E — O		E — O		M — O		M — O	
		1969-71 - 1979-81		1979-81 1985-87		1969-71- 1979-81		1979-81- 1985-87	
SITC Code No.	Commodities	Nature of Competiti- veness		Nature of Competiti- veness		Nature of Competiti- veness		Nature of Competiti- veness	
0.0	Food and live animals	L	U	L	F	L	U	H	F
1.0	Beverages and tobacco	L	U	L	U	L	U	L	U
2.0	Crude materials, in- edible except fuels	L	F	-	U	H	F	-	U
-	Mineral fuels, lubri- cants and related materials	-	U	-	F	-	U	-	F
4.0	Animal Vegetable oils and fats	L	U	L	F	L	U	H	F
5.0	Chemicals	L	F	-	U	H	F	L	U
6.0	Manufactured goods cla- ssified by materials	L	F	L	F	L	F	H	F
7.0	Machinery and transport equipment	L	F	L	U	L	F	L	U
8.0	Miscellaneous manufac- tured articles	L	F	L	U	L	F	H	U
Overall		L	F	H	F	L	F	L	F

Appendix-IV.4 Contd...

		Korea Republic							
		E — D		E — D		M — D		M — D	
		1969-71 - 1979-81		1979-81 1985-87		1969-71- 1979-81		1979-81- 1985-87	
SITC Code No.	Commodities	Nature of Competiti- veness		Nature of Competiti- veness		Nature of Competiti- veness		Nature of Competiti- veness	
0.0	Food and live animals	H	F	H	F	L	F	H	F
1.0	Beverages and tobacco	H	F	L	U	L	F	L	U
2.0	Crude materials, in- edible except fuels	H	F	L	F	H	F	H	F
3.0	Mineral fuels, lubri- cants and related materials	H	F	L	F	H	F	H	F
4.0	Animal vegetable oils and fats	H	F	H	U	H	F	H	U
5.0	Chemicals	H	F	H	F	L	F	L	F
6.0	Manufactured goods cla- ssified by materials	H	F	L	F	H	F	H	F
7.0	Machinery and transport equipment	H	F	H	F	H	F	L	F
8.0	Miscellaneous manufac- tured articles	H	F	H	F	H	F	H	F
Overall		H	F	H	F	L	F	L	F

Appendix-IV.4 Contd...

		Malaysia							
		E		E		M		M	
		D		D		D		D	
		1969-71 - 1979-81		1979-81 1985-87		1969-71- 1979-81		1979-81- 1985-87	
SITC Code No.	Commodities	Nature of Competiti- veness		Nature of Competiti- veness		Nature of Competiti- veness		Nature of Competiti- veness	
0.0	Food and live animals	H	F	L	F	H	F	H	F
1.0	Beverages and tobacco	H	F	L	F	H	F	L	F
2.0	Crude materials, in- edible except fuels	H	U	-	F	H	U	H	F
3.0	Mineral fuels, lubri- cants and related materials	L	F	L	F	H	F	L	F
4.0	Animal vegetable oils and fats	H	F	H	F	L	F	-	F
5.0	Chemicals	H	U	H	F	L	U	L	F
6.0	Manufactured goods cla- ssified by materials	H	U	H	F	L	U	H	F
7.0	Machinery and transport equipment	H	F	H	U	H	F	L	U
8.0	Miscellaneous manufac- tured articles	H	F	H	F	H	F	H	F
Overall		H	F	H	F	H	F	L	F

Appendix-IV.4 Contd...

		Singapore							
		E		E		M		M	
		O		O		O		O	
		1969-71 - 1979-81		1979-81 1985-87		1969-71- 1979-81		1979-81- 1985-87	
SITC Code No.	Commodities	Nature of Competiti- veness		Nature of Competiti- veness		Nature of Competiti- veness		Nature of Competiti- veness	
0.0	Food and live animals	H	F	L	F	H	F	H	F
1.0	Beverages and tobacco	H	F	L	F	H	F	L	F
2.0	Crude materials, in- edible except fuels	H	U	L	F	H	U	H	F
3.0	Mineral fuels, lubri- cants and related materials	L	F	L	F	H	F	H	F
4.0	Animal Vegetable oils and fats	H	U	H	U	H	U	H	U
5.0	Chemicals	H	F	H	F	L	F	H	F
6.0	Manufactured goods cla- ssified by materials	H	F	H	F	H	F	H	F
7.0	Machinery and transport equipments	H	F	H	F	H	F	L	F
8.0	Miscellaneous manufac- tured articles	H	F	H	U	H	F	H	U
Overall		H	F	H	F	H	F	L	F

Appendix-IV.4 Contd...

		Turkey							
		E		E		M		M	
		O		O		O		O	
		1969-71 - 1979-81		1979-81 1985-87		1969-71- 1979-81		1979-81- 1985-87	
SITC Code No.	Commodities	Nature of Competiti- veness		Nature of Competiti- veness		Nature of Competiti- veness		Nature of Competiti- veness	
0.0	Food and live animals	H	U	H	F	L	U	H	F
1.0	Beverages and tobacco	H	U	H	U	H	U	L	U
2.0	Crude materials, in- edible except fuels	H	U	H	U	H	U	H	U
3.0	Mineral fuels, lubrican- ts and related materials	H	F	H	F	L	F	L	F
4.0	Animal Vegetable oils and fats	H	F	H	U	H	F	H	U
5.0	Chemicals	H	F	H	F	L	F	L	F
6.0	Manufactured goods cla- ssified by materials	H	U	H	F	H	U	H	F
7.0	Machinery and transport equipment	H	F	H	F	H	F	L	F
8.0	Miscellaneous manufac- tured articles	H	F	H	F	H	F	H	F
Overall		H	U	H	F	L	U	L	F

Note : E = Number of Workers.

M = Material Cost in US \$

O = Output in US \$

L = Indicates lower cost of labour or material for production of one dollar worth of output in export-country vis-a-vis the rest of the world.

H = Indicates higher cost of labour or material for production of one dollar worth of output in export-country vis-a-vis the rest of the world.

F = Indicates favourable competitiveness effect by commodity groups vis-a-vis the rest of the world.

U = Indicates unfavourable competitiveness effect by commodity groups vis-a-vis the rest of the world.

Source : Year Book of Industrial Statistics, United Nations; Commodity Trade Statistics, United Nations; Monthly Statistics of Foreign Trade of India, DGCI & S, Calcutta, Various Issues.

Appendix-IV.5 : List of Policy Measures

I - Fiscal Changes

A - Tariff Charges

1. Customs duties
2. Fiscal duties

B - Additional Fiscal Charges

1. Customs surcharge and surtax
2. Special tax on beverages, tobacco and matches
3. Special tax on petroleum products
4. Excise duties on other products
5. Stamp tax
6. Counter vailing duties
7. Consumer invoice fee
8. License fee

C - Service Charges With Equivalent Effect

1. Statistical tax
2. Tax on transport facilities

Appendix-IV.5 Contd...

D - Sales Tax Levied at Importation

1. Value added tax
2. Turnover tax
3. Production tax
4. Consumption tax

II - Other Controls

A - Quantitative Restrictions

1. Restrictive licensing
2. Quotas
3. Prohibition

B - Money and Finance Measures

1. Advanced import deposit
2. Multiple exchange rates
3. Restrictive foreign exchange allocation
4. Tax on foreign exchange transactions

C - Customs Valuation in Form of Fixed Unit Values

D - State Trading Monopoly

1. Single channel for imports
2. Compulsory national insurance
3. Compulsory national transport

Appendix-IV.5 Contd...

E - Preferential Trading Arrangements

1. Multilateral preferential tariff arrangements
2. Bilateral preferential tariff arrangements
3. Preferential arrangements n.e.s.

F - Special Entry Procedures

Source : UNCTAD, Trade Information System; Bhattacharya, A. and Linn, J.F., Trade and Industrial Policies in The Developing Countries of East Asia, World Bank Discussion Paper, 27, 1988, p.39.

CHAPTER V

EXPORT GROWTH, INTERNAL EXPORT EFFICIENCY AND POLICY RESPONSES

I. Introduction

Earlier chapters discussed the role of factors on supply and to that on demand, which, however, ignored largely the influence of cost and trade regime on export growth. An attempt, has, therefore, been made to empirically examine : (1) export pattern in comparative framework, (2) export efficiency, (3) role of policy responses and (4) the export potential of NICs into developed, developing and among themselves. Where as, export performance has been examined for all selected NICs (Argentina, Brazil, India, Israel, Korea Republic, Malaysia, Pakistan, Singapore and Turkey), the role of cost efficiency export efficiency and policy measures has been considered for India alone. This is in light of the objective set out in the introductory chapter-I of the study.

II. Export Pattern

Analysis of export pattern portrays the movement in exports over time. It compares export pattern in each NICs with other NICs. Table-V.1 records the movement in export from 1971 to 1992 at 1987 prices. It was seen that Korea's export shot up by 24.72 times from US \$ 2637 million in 1971 to US \$ 65183 million in 1992. Corresponding increase in Turkey was 7.01 times; Singapore 6.57; Malaysia 6; Brazil 5 and Israel and Pakistan 4 times. As compared to above, the export growth was found to be less spectacular in Argentina and India, which grew by 2.38 and 2.56 times respectively. Export growth in India and Argentina was, however, found to be higher than that in developing countries as a whole, which recorded an increase in export by 1.74 times. Thus, export growth in India has been one of the least significant as compared with most of NICs.

Additional statistical test has also been performed with the help of simple linear regression model, in which export is treated as function of time ($y = a + bt$). From 1971 to 1981, export in India grew by US \$ 367.11 mill. annually, which was higher than that in Israel, Turkey and Pakistan, where it grew by US \$ 340.71 million, US \$ 161.30 million and US \$ 71.29 million respectively. Also, export-growth in India exceeded to that of developing countries, which portrayed a deceleration. However, export growth in India was found to be lower than that in rest of NICs (Table-V.2).

Table-V.1

Export of Newly Industrializing Developing Countries at 1987
Prices : 1971-1992

(In mill. US \$ at 1987 prices)

Year	Argen- tina	Brazil	India	Israel	Korea Rep.	Malay- sia	Paki- stan	Singa- pore	Turkey	Devel- oping count- ries
1971	3893	6541	6548	2308	2637	6139	1919	8478	1612	424685
1972	4002	8195	7339	2808	4101	6239	1837	13380	2425	461670
1973	5064	8945	7383	3142	6582	6623	1439	13726	2727	547445
1974	5085	9614	7361	2687	7252	6254	1360	11019	2396	427930
1975	3845	10946	7739	2718	8143	6702	1611	10841	2206	373370
1976	5041	11130	10011	3430	10974	8312	1760	11996	2816	440230
1977	7053	11181	10452	4222	14048	8138	1513	14162	2435	449270
1978	7594	12787	10231	4996	15989	8721	1715	15959	2922	459920
1979	7465	14287	10666	4897	15911	10105	2113	17485	2390	465780
1980	6838	17601	9599	5212	17431	9999	2374	19184	2847	418640
1981	7670	20748	9156	5543	20813	9961	2531	19707	4769	393490
1982	7304	19727	10273	5405	22273	11314	2387	20998	6566	372740
1983	7015	22813	10494	5360	25615	13080	3069	22695	6613	381750
1984	7397	27893	10683	6273	30340	14744	2689	25241	8562	405430
1985	8288	28829	10470	6896	32319	15401	3071	24718	9982	392470
1986	7071	23329	11272	7700	37679	16743	3850	27087	8501	481350
1987	6360	26225	12888	8475	47172	17911	4178	28592	10190	508000
1988	7293	30765	12282	8425	53430	20555	4610	37989	10789	578800
1989	9415	31627	15494	8850	52295	23903	5052	42075	9920	609730
1990	9035	29180	14735	9170	54854	26244	5734	45922	9614	612190
1991	9093	30601	15172	9012	60128	31410	7104	51506	10361	695620
1992	9269	34573	16799	9839	65183	36311	8190	55699	11302	739160

Source : World Tables, World Bank, Various issues.

From the period 1981-92, some improvement was recorded in India's export growth. Export growth in India was found to be relatively higher than that in Argentina, Israel, Pakistan and Turkey, whereas, lower considerably than that in Brazil, Korea Republic, Malaysia, Singapore and the developing countries as a whole. Over the long period from 1971-92, India recorded growth in her export by US \$ 322.82 million per annum, which was higher than that of US \$ 228.55 million in Argentina and that of US \$ 260.36 million in Pakistan. Growth in India's export was, however, found to be lower than that in Brazil, Israel, Korea Republic, Malaysia, Singapore, Turkey and the developing countries (Table-V.2).

To prove this, further statistical test has also been carried out by fitting the semi-logarithmic regression function ($\log y = a + bt$) to test the relationship of export growth with time. Statistically reliable result showed that India's export grew by 4 per cent from 1971-81, which was just equal to that of Pakistan, but considerably lower than that of Korea Republic and Malaysia (19 per cent), Brazil (10 per cent), Israel (9 per cent), Argentina and Singapore (7 per cent) and Turkey (6 per cent). For the remaining periods, no conclusive inferences could be drawn as regression coefficients were found to be statistically nonsignificant (Table-V.3). Thus, general findings underlines the poor performance of export in India from 1971 to 1992, although some quantitative achievements have been recorded from 1981 to 1992. This poses a relevant question

Table-V.2 : Export Function of Newly Industrializing Developing Countries With Time at 1987 Prices : 1971-1992

Regression Equation : $y = a + bt$

y = Export in mill \$ 1987 = 100

Sl. Country No.	Period	Constant term (a)	Regression coefficient (b)	T = Values	R ² = Values	F = Statistics
1. Argentina	1971-81	3286.84	415.07*	5.57	0.78*	31.91
	1981-92	4676.20	194.84*	2.81	0.44*	7.86
	1971-92	4225.78	228.55*	7.62	0.74*	56.92
2. Brazil	1971-81	4850.24	1191.99*	8.60	0.89*	72.82
	1981-92	5609.45	1282.81*	4.85	0.70*	23.33
	1971-92	4009.06	1361.21*	16.43	0.93*	265.71
3. India	1971-81	6568.71	367.11*	4.07	0.65*	16.71
	1981-92	2562.26	545.31***	1.73	0.23***	2.99
	1971-92	6562.38	322.82*	3.42	0.37*	11.75
4. Israel	1971-81	1761.47	340.71*	9.04	0.90*	81.00
	1981-92	388.46	435.79*	12.83	0.94*	156.67
	1971-92	1537.36	369.35*	25.09	0.97*	646.67
5. Korea Republic	1971-81	-314.42	1777.87*	5.50	0.77*	30.13
	1981-92	-28314.30	4251.88*	20.10	0.98*	490.00
	1971-92	-7987.79	3047.04*	17.57	0.94*	313.35

Table-V.2 Contd..

Sl. Country No.	Period	Constant term (a)	Regression coefficient (b)	T = Values	R ² = Values	F = Statistics
6. Malaysia	1971-81	5146.67	463.33*	9.35	0.91*	91.00
	1981-92	-16276.10	2186.32*	11.19	0.93*	132.86
	1971-92	323.61	1216.16*	10.34	0.84*	105.00
7. Pakistan	1971-81	1406.07	71.29**	2.43	0.39**	5.75
	1981-92	-3711.58	489.92*	9.32	0.90*	90.00
	1971-92	192.55	260.36*	8.60	0.79*	75.24
8. Singapore	1971-81	8512.15	943.99*	5.34	0.76*	28.50
	1981-92	-21782.90	3351.61*	11.01	0.92*	115.00
	1971-92	1794.05	1972.29*	11.20	0.86*	122.86
9. Turkey	1971-81	1718.11	161.30**	2.81	0.47**	7.98
	1981-92	973.54	482.26*	5.60	0.76*	31.67
	1971-92	-8.18	522.23*	12.51	0.89*	161.82
10. Developing Countries	1971-81	465670.80	-3937.97	-0.90	0.08	0.78
	1981-92	-58569.60	34715.16*	11.10	0.92*	115.00
	1971-92	368844.70	9980.88*	3.54	0.39*	12.79

* Indicates significant at 1 per cent level.
 ** Indicates significant at 5 per cent level.
 *** Indicates significant at 10 per cent level.

Source: World Tables, World Bank, Various issues.

Table-V.3 Trends in Export Performance in Newly Industrializing Developing Countries at 1987 Prices : 1971 - 1992

$$\text{Regression Equation : } \log y = a + bt$$

y = Export in mill. US. \$ 1987 = 100

Sl. Country No.	Period	Constant term (a)	Regression coefficient (b)	T = Values	R ² = Values	F = Statistics
1. Argentina	1971-81	8.18	0.07*	5.36	0.76*	28.50
	1981-92	8.58	0.02**	2.64	0.41**	6.95
	1971-92	8.38	0.04*	7.10	0.72*	51.43
2. Brazil	1971-81	8.75	0.10*	13.23	0.93*	132.86
	1981-92	9.31	0.05*	4.19	0.64*	17.78
	1971-92	8.88	0.08*	16.82	0.93*	265.71
3. India	1971-81	8.80	0.04*	4.34	0.68*	19.13
	1981-92	8.75	0.03	0.49	0.02	0.20
	1971-92	8.91	0.02	1.23	0.07	1.51
4. Israel	1971-81	7.66	0.09*	8.94	0.90*	81.00
	1981-92	7.92	0.06*	10.94	0.92*	115.00
	1971-92	7.77	0.07*	20.58	0.95*	380.00
5. Korea Republic	1971-81	7.80	0.19**	2.68	0.44**	7.07
	1981-92	8.77	0.11*	16.52	0.96*	240.00
	1971-92	8.04	0.15*	8.72	0.79*	75.24

Table-V.3 Contd..

Sl. Country No.	Period	Constant term (a)	Regression coefficient (b)	T = Values	R ² = Values	F = Statistics
6. Malaysia	1971-81	7.80	0.19**	2.68	0.44**	7.07
	1981-92	8.77	0.11*	16.52	0.96*	241.00
	1971-92	8.04	0.15*	8.72	0.79**	75.24
7. Pakistan	1971-81	7.28	0.04**	2.25	0.36**	5.06
	1981-92	6.48	0.11*	14.58	0.96*	240.00
	1971-92	7.03	0.08*	12.50	0.89*	161.82
8. Singapore	1971-81	9.13	0.07*	4.94	0.73*	24.33
	1981-92	8.72	0.10*	15.86	0.96*	240.00
	1971-92	9.04	0.08*	19.35	0.94*	313.33
9. Turkey	1971-81	7.53	0.06*	3.06	0.51*	9.37
	1981-92	8.07	0.06*	5.06	0.72*	25.71
	1971-92	7.36	0.10*	12.49	0.89*	161.82
10. Developing Countries	1971-81	13.05	-0.01	-0.88	0.08	0.78
	1981-92	12.02	0.07*	11.85	0.93*	132.86
	1971-92	12.86	0.02*	3.29	0.35*	10.77

* Indicates significant at 1 per cent level.

** Indicates significant at 5 per cent level.

Source: World Bank Tables, World Bank, Various issues.

as to how far such phenomenon per se is accountable to the cost efficiency and the role of export promoting measures.

III. Cost Structure and Internal Export Efficiency

Cost competitiveness determines the exportability of a commodity in foreign market. Low cost of machinery and equipments, land and building under the fixed cost and the raw materials, transport, marketing, wages and salaries, etc. under the variable cost makes the commodity cost effective and thereby export internationally competitive and vice-versa. The internal cost efficiency by commodities, thus, requires the calculation of fixed and variable components of total cost of production. The principal components of cost as a ratio of output has, therefore, been worked out. Per employee output (in lakh of rupees), ratio of material cost to output (in rupees) and the ratio of productive capital to output (in rupees) have been worked out to represent the cost efficiency of a export commodity. The concept of internal export efficiency, however, needs to be understood appropriately. Major determinants of internal export efficiency are cost of production, export prices, internal government policies, marketing strategy, etc. Thus those products produced at least cost of production, requiring least marketing expences, having competitive export prices and favourable government supports could be considered as

efficient export products than those having obverse of characteristics.

Given the data limitation, it has, however, not been possible for us to identify internal efficient export-products on the basis of above criteria. Instead, we considered the percentage share of export in India's export basket as a rough proxy for internal export efficiency. Thus, rising export share implies the improving export efficiency and vice-versa. Increasing share of export of a specific commodity would further indicate the positive role played by various factors, such as, improvement in cost and price competitiveness, marketing strategy, pattern of comparative advantage, etc., where as, reverse could be on account of adverse of above characteristics.

We may now discuss first the extent to which internal efficiency of export-commodity is attributable to the cost structure in terms of technological coefficients in 1970-71, 1980-81 and 1984-85. A close examination of table-V.4 portrayed a mixed pattern; the internal export efficiency fell down in some products, whereas, improved in others. For example, in 1980-81 over 1970-71, the internal export efficiency deteriorated in (1) jute, hemp and mesta textiles, (2) textiles, (3) paper and paper products, (4) rubber, plastics, petroleum and coal and (5) basic metal and alloys industries. This was found partly the result of comparative

Table-V.4 : Percentage Change in Principal Economic Indicators in India's major Export-Commodities Over Different Points of Time

Sl. Commodities No.	Percentage change in 1980-81 over 1970-71			
	Export share	Employment intensity (E/O)	Material intensity (M/O)	Capital intensity (C/O)
1. Food products	-4.87	-34.15	-7.32	-3.85
2. Beverages and tobacco	-2.76	-0.56	-3.51	-19.44
3. Jute, hemp and mesta textiles	-60.35	-60.25	-18.33	-59.38
4. Textile products	-33.42	-66.28	-20.55	-27.58
5. Wood and wood products, furni- tures	250.00	-70.23	-31.58	-14.28
6. Paper and paper products, prin- ting, publishing etc.	-40.00	-70.30	2.00	-9.46
7. Leather and leather and fur products	6.81	-65.30	-8.86	15.00
8. Rubber, plastics, petroleum and coal products	-75.46	-82.50	23.88	-59.15
9. Chemical and chemical products	48.10	-68.42	3.57	-22.22
10. Non-metallic mineral products	203.79	-67.15	-6.52	-34.48
11. Basic metal and alloys industries	-57.86	-72.70	--	-32.81
12. Metal products	52.20	-70.66	-7.81	-23.08
13. Non-electrical machinery	136.43	-73.65	12.24	-29.23
14. Electrical machinery	41.90	-71.97	-1.61	-42.31
15. Transport equipments and parts	-41.25	-71.65	-1.69	1.43
16. Other manufacturing industries	-41.18	180.00	-9.68	-14.29
Overall	-10.26	-63.35	-7.05	-22.83

Table-V.4 Contd..

Sl. No.	Commodities	Percentage change in 1984-85 over 1980-81			
		Export share	Employment intensity (E/O)	Material intensity (M/O)	Capital intensity (C/O)
1.	Food products	-18.14	-55.56	3.95	4.00
2.	Beverages and tobacco	-27.49	-50.42	3.64	-3.45
3.	Jute, hemp and mesta textiles	-40.85	-34.39	28.57	-46.15
4.	Textile products	-22.04	-26.72	3.45	19.05
5.	Wood and wood products, furnitures	71.43	-32.64	21.15	11.90
6.	Paper and paper products, printing, publishing etc.	-42.86	-41.61	--	20.90
7.	Leather and leather and fur products	6.37	-27.27	1.39	-4.35
8.	Rubber, plastics, petroleum and coal products	1918.75	-39.29	1.20	117.24
9.	Chemical and chemical products	17.09	-40.00	1.72	-17.14
10.	Non-metallic mineral products	5.82	-48.54	-6.98	14.04
11.	Basic metal and alloys industries	-49.15	-35.00	5.36	-3.49
12.	Metal products	-38.63	-33.58	5.08	-2.50
13.	Non-electrical machinery	-11.18	-35.71	-1.82	2.17
14.	Electrical machinery	-30.20	-27.27	--	11.11
15.	Transport equipments and parts	-44.52	-38.19	--	-16.90
16.	Other manufacturing industries	-35.00	-35.00	-8.93	-3.70
Overall		3.34	-34.11	16.95	16.90

Note : E
- = Indicates the requirement of employees to produce Rs. one lakh worth of output.

O
M
- = Indicates the requirement of material cost to produce one rupee worth of output.

O
C
- = Indicates the requirement of productive capital to produce one rupee worth of output.

Source: H.L. Chandhok and Policy Group, India Data Base : The Economy, Vol. II, New Delhi, 1990.

material cost disadvantages; in (1) food products and (2) transport to the comparative capital cost disadvantages; and that in (1) beverage and tobacco and (2) other manufacturing industries to the comparative labour cost disadvantages. On the other hand, improved internal export efficiency observed in (1) wood and wood products, (2) leather, (3) chemicals, (4) non-metallic mineral products, (5) metal products, (6) non-electrical machinery and in (7) electrical machinery was found partly to the comparative labour cost advantages.

The pattern of internal export efficiency was found entirely different in 1984-85 over 1980-81. For example, fall in internal export efficiency in (1) beverages and tobacco, (2) jute, hemp and mesta textiles, (3) basic metals and alloys industries, (4) metal products and (5) transport equipment and parts was found partly on account of comparative material cost disadvantages, while in (1) food products, (2) textiles, (3) paper and paper products, (4) non-electrical machinery, (5) electrical machinery and (6) other manufacturing industries to comparative capital cost disadvantages. In contrast to above, improved internal export efficiency in (1) wood and wood products, (2) leather and leather products, (3) rubber, plastics, petroleum and coal, (4) chemicals and (5) non-metallic mineral products was found partly owing to comparative labour cost advantages.

So as to portray the relationship between the internal export efficiency and cost structure, further statistical

test has been carried out by correlating the export efficiency with cost behaviour. This is performed for 16 commodities for 1970-71, 1980-81 and 1984-85. Table-V.5 summarises the result of correlation analysis. In 1970-71, the sign of correlation coefficient is found to be positive between export efficiency and material intensity, whereas, negative relationship has been postulated between export efficiency and capital intensity. Correlation coefficient between export efficiency and employment intensity has, however, been found to be statistically non-significant. In 1980-81, correlation between export efficiency and the capital intensity is negative, whereas, statistically non-significant between export efficiency and remaining variables. In 1984-85, the export efficiency shows the positive relationship with material intensity, whereas, with other variables it has been found to be statistically nonsignificant. It may be mentioned that correlation between internal export efficiency and the employment intensity has been found to be statistically nonsignificant for all years under reference (Table-V.5).

Further, a number of regression models has also been fitted to describe the relationship between internal export efficiency and explanatory variables. Table-V.6 portrays the results of regression model fitted in simple linear form to explain the internal export efficiency on account of employment intensity, material intensity and capital inten-

Table-V.5 : Correlation Coefficients Between Share of Export with Employment Intensity, Material Intensity and Capital Intensity In India Over Different Points of Time

Export Share Factor intensity	Correlation Coefficients			
	Share of exports	Employment intensity	Material intensity	Capital intensity
<u>A - 1970-71</u>				
Share of Exports	1.0000	-0.0605	0.5457**	-0.5496**
Employment intensity	-0.0605	1.0000	-0.1457	-0.1548
Material intensity	0.5457**	-0.1475	1.0000	-0.6383*
Capital intensity	-0.5496**	-0.1548	-0.6383*	1.0000
<u>B - 1980-81</u>				
Share of exports	1.0000	0.0409	0.2687	-0.4094***
Employment intensity	0.0409	1.0000	-0.5120**	-0.3501
Material intensity	0.2687	-0.5120**	1.0000	-0.3565
Capital intensity	-0.4094***	-0.3501	-0.3565	1.0000
<u>C - 1984-85</u>				
Share of exports	1.0000	-0.3401	0.5478**	-0.2282
Employment intensity	-0.3401	1.0000	-0.2671	-0.5186**
Material intensity	0.5478**	-0.2671	1.0000	-0.3466
Capital intensity	-0.2282	-0.5186**	-0.3466	1.0000

Note : * Indicates significant at 1 per cent level.
 ** Indicates significant at 5 per cent level.
 *** Indicates significant at 10 per cent level.

Source : H.L. Chandhok and Policy Group, India Data Base: The Economy, Vol.II, New Delhi, 1990.

sity ($y_1 = a_1 + b_1x_1 + b_2x_2 + b_3x_3 + U$). Statistically reliable regression coefficient for the year 1984-85 shows the inverse relationship between the internal export efficiency and employment intensity. It would imply that improved efficiency has partly been due to the fall in employment intensity and vice-versa. However, regression coefficients and R^2 for remaining years have been found to be statistically nonsignificant (Table-V.6).

Since regression results for 1970-71 and 1980-81 were found to be statistically nonsignificant, we employed different forms of regression models, explaining dependent variable with only one independent variable. Table-V.7 portrays the regression results for 1970-71, 1980-81 and 1984-85. In 1970-71 and 1980-81, statistically reliable results show the inverse relationship between the internal export efficiency and capital intensity. In 1984-85, a similar has also been the case between export efficiency and the employment intensity. Contrary to above, a positive relationship has been postulated between internal export efficiency and material intensity in 1970-71 and 1984-85. It implies that improvement in internal export efficiency in India in 1970-71 has partly been the outcome of low capital intensity and high material intensity; in 1980-81, low capital intensity alone; and that in 1984-85, low employment intensity but high material intensity (Table-V.7).

Table-V.6 : Determination of Share of 16 Export Commodities in India :
1970-81, 1980-81 and 1984-85

$$\text{Regression Equation : } y_1 = a_1 + b_1x_1 + b_2x_2 + b_3x_3 + U$$

Year	Constant term (a_1)	Independent Variables			$R^2 = F = \text{Statistics}$ Values	
		Employ- ment in- tensity (x_1)	Material intensity (x_2)	Capital intensity (x_3)		
1970-71	-1.01	-0.28 (-0.30)	22.53 (0.95)	-10.45 (-1.18)	0.37	2.35
1980-81	6.07	-0.24 (-0.08)	7.81 (0.29)	-12.05 (-1.01)	0.19	0.94
1984-85	3.90	-5.52*** (-1.39)	18.29* (1.08)	-10.23 (-1.07)	0.40***	2.67

Note : Figures under paranthesis denote 't' values

y_1 = Indicates percentage of exports of principal commodities of the total India's exports.

a_1 = Indicates constant term.

x_1 = Indicates requirement of employees to produce Rs. one lakh worth of output.

x_2 = Indicates requirement of material cost to produce one rupee worth of output.

x_3 = Indicates requirement of productive capital to produce one rupee worth of output.

*** Indicates significant at 10 per cent level.

Table-V.7 : Export Share Function by Commodities in India : 1970-71, 1980-81 and 1984-85

Year	Independent Variables				T = Values	R ² Values	F= statist- tics
	Constant term	Employ- ment in- tensity	Material intensity	Capital intensity			
	(a ₁)	(X ₁)	(M ₁)	C ₁			
<hr/>							
<u>A - Regression Equation $y_1 = a_1 + b_1x_1 + U$</u>							
1970-71	6.50	-0.23	-0.23	-	-0.23	0.004	0.06
1980-81	4.43	0.31	-	-	0.15	0.002	0.03
1984-85	9.08	-4.30***	-	-	-1.35	0.12	1.91
<u>B - Regression Equation $y_1 = a_1 + b_1m_1 + U$</u>							
1970-71	-20.13	-	41.22**	-	2.44	0.30**	6.00
1980-81	-5.56	-	17.77	-	1.04	0.07	1.06
1984-85	-14.57	-	32.25**	-	2.45	0.30**	6.00
<u>C - Regression Equation $y_1 = a_1 + b_1c_1 + U$</u>							
1970-71	14.98	-	-	-15.50**	2.46	0.30**	6.00
1980-81	10.75	-	-	-13.04**	-1.68	0.17***	2.87
1984-85	8.22	-	-	-6.72	-0.88	0.05	0.74

Note : y_1 = Indicates percentage of exports of principal commodities of India's total exports.

a_1 = Indicates constant term.

X_1 = Indicates employment intensity (i.e., E/O in Rs. lakhs).

m_1 = Indicates material intensity (i.e., M/O in Rs.)

C_1 = Indicates capital intensity (i.e., C/O in Rs.)

** Indicates significant at .5 per cent level.

*** Indicates significant at 10 per cent level.

Source : H.L. Chandhok and Policy Group, India Data Base : The Economy, Vol.II, New Delhi, 1990.

IV. Policy Measures and Internal Export Efficiency

Above analysis provides only a partial explanation for India's internal export efficiency, which needs to be corroborated by other determining factors as well. Here, the influence of export promoting measures merits special consideration. It may, however, be mentioned that the role of such measures is highly erratic, which not only fluctuates on yearly but also even on quarterly and monthly basis, which makes its measurement a rather difficult task in a quantitative precision. Notwithstanding, an attempt has been made to examine empirically the influence of few but selective policy measures, such as, Cash Compensatory Support (CCS) Import Replenishment Licences (REP) and Duty Draw Back offered by Indian government for exporters.

IV.1 Cash Compensatory Support and Import Replenishment Licences

It may be recapitulated (Chapter III) that India's export efficiency measured in terms of percentage share of export in India's export basket deteriorated from the period 1969-72 to 1984-87 in most of the traditional commodities, whereas, improved in almost all non-traditional commodities. Specifically, percentage share of export in food and live animals (0.0) declined from 27.02 per cent in 1969-72 to 22.34 per cent in 1984-87; beverages and tobacco (1.0) 2.83 per cent to 1.50 per cent; crude materials inedible

except fuels (2.0) 15.27 per cent to 9.52 per cent; animal vegetable oils and fats (4.0) 0.43 per cent to 0.26 per cent; and in manufactured goods classified by materials (6.0) 42.12 per cent to 36.37 per cent. On the contrary, in non-traditional product categories, it increased from 1.59 per cent to 3.91 per cent in chemicals (5.0); 4.96 per cent to 6.71 per cent in machinery and transport equipment (7.0); and 5.20 per cent to 15.70 per cent in miscellaneous manufactured articles (8.,0). Thus, it is useful to examine as to how far the internal export efficiency/inefficiency in export-commodities is accountable to the influence of policy measures.

Table-V.8 summerises the cash compensatory support (CCS) (effective from 1-4-1989 to 31-3-1992) and Import Replenishment licences (effective from 1-4-1990 to 31-3-1993) by broad commodity groups. The average CCS rate of FOB export has been found to be higher on non-traditional goods like engineering goods (10.08 per cent) and miscellaneous manufacturing articles (9.67 per cent) than that on agricultural products, processed food items, etc (8.70 per cent). However, average CCS rate was lowest in chemicals, being 7.70 per cent. Similarly, REP rate of FOB exports, was higher on engineering goods (17 per cent), miscellaneous manufactured articles (16.54 per cent) and chemicals (15.36 per cent), which was far higher than that on agricultural products, processed food, etc. (12.42 per cent).

Table-V.8 : Cash Compensatory Support and Import Replenishment Licences in India
By Broad Export Commodity Groupings

Commodity groups	CCS		REP	
	Number of products	Average CCS as per cent of FOB value (effective from 1-4-1989 to 31-3-1992)	Number of products	Average of REP as per cent of FOB value provided to exporters (effective from 1-4-1990 to 31-3-1993)
A - Engineering goods	102	10.08	120	17.52
B - Chemicals	110	7.70	65	15.36
C - Agricultural products, processed food items, marine products, etc.	56	8.70	59	12.42
D - Miscellaneous manufacturing items	50	9.67	42	16.54
Overall	318	9.58	286	16.35

Source : Kumari, A., Export Incentives, Volume - I, Anupam Publishers, New Delhi, 1991

Appendix - V.1, records the CCS and REP rate in selected export commodities. Among the non-traditional sector, bicycles (new models) received 18 per cent of CCS of FOB value; steel welding machinery 15 per cent; motor vehicles 20 per cent; tractors 15 per cent; air conditioning, refrigeration, humidification and ventilation equipment 15 per cent; steel castings 15 per cent; steel forgings all types (including carbon/alloy/stainless steel) 20 per cent; and ferro alloys 15 per cent. REP of FOB value has also been higher on electric fans 20 per cent; inlet and exhaust valves for reciprocating engines and compressors 20 per cent; diesel engines and gas engines 20 per cent; motor vehicles, tractors, motor cycles, scooters, mopeds, 20 per cent; steel trunks, pressure cooker 15 per cent; and electric lamps all sorts 20 per cent. Generally, REP varied from 15 per cent to 20 per cent in engineering goods.

Within the miscellaneous manufacturing articles, the CSS and REP varied by commodities. CSS rate was 20 per cent on footwear; 12 per cent on wool worsted fabrics; 13 per cent on woolen hosiery knitwear; 14 percent on natural silk fabrics; 13 per cent on natural silk garments; 10 per cent on all items of handi crafts; and 15 per cent on hand knotted silk carpets and rugs and hand knotted art silk/synthetic carpets. The CSS rate varied from 5 per cent to 20 per cent. A similar was also the case for REP. Plastic imitation jewellery, plastic bangles, writing instruments and parts, cushioned vinyl flooring and finished leather including sole

leather received 15 per cent of REP, while footwear components, leather garments, shoddy/woolen blankets, wollen hosiery knitwears, natural silk fabrics, man made fibre garments, hand knotted silk carpets and rugs and hand knotted art silk/synthetic carpets enjoyed 20 per cent of REP to FOB value of exports.

On the other hand, average rate of CCS was lowest in chemical products under non-traditional sector, but was marginally higher than that on products under traditional sector. For example, CCS rate on aluminium powder and paste was 5 per cent; chrome pigments 10 per cent; organic pigments 10 per cent; synthetic detergent powder 5 per cent; drugs and drug intermediates 15 per cent; insecticides, pesticides 5 per cent; paints, varnishes 12 per cent; sodium sulphate 5 per cent; red phosphorous and phosphorous trichloride 8 per cent; thionyle chloride 5 per cent; potassium carbonate 5 per cent; caustic potash flakes 5 per cent; triethylamine 5 per cent; melamine 5 per cent; ethyle alcohol 10 per cent; phenol 8 per cent; acetone 8 per cent; diethylenetriamine (DETA) 8 per cent; hydrogen peroxide 5 per cent, etc. Generally, CCS was lowest in chemicals, which varied from 5 per cent to 15 per cent. REP rate was found to be higher than the CCS rate in chemical products. For instance, REP in aluminium powder and paste, chrome pigment, sodium cyanide, boric acid, abrasive lapping power and face creams/cold was found to be 15 per cent; dyes and dye intermediates, insecticides, pesticides and paints, varnishes 20 per cent;

medicinal plants, herbs, crude drugs 10 per cent; and hair oil 10 per cent. Generally, REP rate ranged between 10 to 20 per cent to FOB value of export.

In traditional commodities the average rate of CCS was found to be 8.70 per cent, which was not only lower than the engineering goods of 10.08 per cent and miscellaneous manufactured articles of 9.67 per cent but than to the average of all products of 9.58 per cent. For instance, canned marine products received CCS of 8 per cent; freeze dried marine products 10 per cent; hatching eggs 5 per cent; day cold live chicks 15 per cent; curry powder in bulk, spices, oils, biscuits, mango pulp and concentrates, instant coffee, packets tea, tea caddles and bags 10 per cent, and canned vegetables and frozen/fresh chilled meat and pickles and chutneys 15 per cent. Similarly, coca beans and canned meat received CCS of 10 per cent and 20 per cent respectively. The CCS thus ranged from lowest 5 per cent to highest 20 per cent, while REP 10 per cent to 20 per cent of FOB value of exports (Appendix-V.1).

IV.2 Duty Draw Back

To assess the impact of duty draw back on India's export commodities, we faced enormous difficulties on account of data limitation. Duty draw back was expressed in different units for different commodities. This forced us to restrict this part of analysis on those commodities, whose duty draw

back facility was available on uniform basis. Thus, duty draw back by commodities expressed only in percentage term of FOB value was considered alone. Therefore, present exercise is only a rough indicator about the impact of duty draw back on Indian export-commodities. The full impact of duty draw back can only be examined in a separate research study in a new dimension. Considering this limitation, we may now discuss below the impact of duty draw back by major non-traditional and traditional commodities.

Rate of duty draw back provided to exporters as on 1-4-1991 (table-V.9) is found to be higher on engineering goods (8.94 per cent) than on miscellaneous manufacturing articles (6.02 per cent) and that on chemicals (5.80 per cent). Among the engineering sector, brass art ware and electro plated received duty draw back of 27 per cent; nickle silver 23 per cent; kerosene burning made of brass 27.40 per cent; pressure lamps/lanterns 18 per cent; blow lamps 22 per cent; pressure cooker 7 per cent; machine tools and accessories 5 per cent; power generating machinery, parts thereof 6.50 per cent; textile machinery parts thereof 7.23 per cent; electrical power machinery 12 per cent; telecommunication equipments and parts 12 per cent; electric fans all sorts 3 per cent; bicycles, assembled or unassembled 9 per cent; rims and caliper bracks 19 per cent; hubs, handle bars, chains and wheels 15 per cent; passenger cars 10 per cent; passenger busses 6 per cent; trucks/load vehicles 4 per cent; jeeps 4 per cent; scooters (two wheeled/motor vehicles) 5 per cent;

Table-V.9 : Duty Draw Back in India by Broad Export-Commodity Groups

Commodity groups	Number of products	Average rate of duty draw back as percentage to FOB Value of exports (effective as on 1-4-1991)
A. Engineering goods including stainless steel products and metal artware	77	8.94
B. Chemicals and allied products	10	5.80
C. Miscellaneous manufacturing articles	64	6.02
Overall	151	7.49

Source : Kumari, A., Export Incentives, Volume II, Anupam Publishers, New Delhi, 1991

auto rickshaw and other similar 3 wheeled motor vehicles with or without body 6 per cent, etc. (Appendix- V.2). Thus, duty draw back varied from lowest of 2 per cent to highest of 27 per cent in accordance to the nature of engineering commodities.

With in the miscellaneous manufacturing group, all ceramic cartridges received 35 per cent of duty draw back; all magnetic cartridges and magnetic stylus 25 per cent; all leather goods including travel goods 4 per cent; harness 9 per cent; leather gloves 5 per cent; bags, wallets and purses 8 per cent; leather shoes 6 per cent; cricket/hockey balls and other cork balls 5 per cent; hockey sticks 5 per cent; carrom board 6 per cent; handloom/power loom lungies 10 per cent; bed sheets, bed covers, quilt covers/counter and panes/pillow cases 4 per cent; cotton bags 4 per cent; cotton gloves 2 per cent; ready made garments all sorts 8 per cent, etc. More or less, the rate of duty draw back fluctuated from 2 per cent to 35 per cent (Appendix- V.2).

The influence of duty draw back has, however, not been found of vital significance explaining the export efficiency of chemical products. For instance, drugs and pharmaceuticals received duty drawback of 4 per cent; synthetic organic dye stuffs, dyes intermediates, pigment dye stuffs and colour lakes 10 per cent; other whitening agents 8 per cent; perfumed agarbatties 13 per cent; insecticides/pesticides 3 per cent, etc. Thus, the rate of duty draw back varied from

2 per cent to 13 per cent on products under chemical sector (Appendix-V.2).

General findings thus, suggest that internal export efficiency in engineering and miscellaneous manufactured commodities has partly been the result of high CCS, REP and duty draw back, whereas, that in chemicals due partly to the REP of the FOB value of exports. In contrast to this, the export inefficiency in traditional products (agricultural goods etc.) appears partly as an outcome of lower rate of CCS and REP.

V. Exports from India and Selected Newly Industrializing Developing Countries : Constraint and Potential

We may now examine empirically the demand of India's export in the world market. The export demand function worked out by the present author elsewhere has been presented herebelow to elicit the role of price and income factors on India's export performance.

$$\text{Log } y_1 = 13.38 - 1.23 \text{ Log } X_1 - 0.52 \text{ Log } X_2 - 0.51 X_3$$

(-3.65)*
(-1.75)**
(-6.58)*

$$R^2 = 0.83* \quad F = \text{Value} = 304.33$$

* Indicates significant at 1 per cent level.

** Indicates significant at 5 per cent level.

Note:

- y_1 = Indicates quantum indices of India's export at 1980-81 = 100
- x_1 = Indicates relative prices in US \$ at 1980-81 = 100
- x_2 = Indicates indices of GDP of 11 major import-markets
- x_3 = Dummy variable '0' from 1961 to 1980 and '1' from 1981 to 1988.

Number years = 27 years (1961 - 1988)

A close examination of the results suggest that an increase by one per cent in price of India's exports would result into fall of her export by 1.23 per cent, where as one per cent increase in GDP of 11 import-markets would lead to a fall of India's exports by 0.52 per cent. Thus, India's export is elastic with respect to price, where as, inelastic with respect to income of the consumers.

It appears that external demand is a basic constraint for India's exports, which is primarily the outcome of poor quality of export-goods and the tariff and non-tariff barriers. So as to understand the export market potential from selected NICs, the import elasticity has further been worked out in relation to per capita GNP. Although, other determinants with import elasticity are equally important, but these have not been calculated in the present exercise. A separate research study in a new dimension is definitely needed by countries and commodities. The import elasticity has been worked out by using the following method:

$$\frac{Q_t - Q_0}{Q_t + Q_0} = \frac{G_t - G_0}{G_t + G_0}$$

where,

Q_t = Indicates value of imports in mill. US \$ during terminal year.

Q_0 = Indicates value of imports in mill. US \$ during base year.

G_t = Indicates the value of per capita GNP in US \$ during terminal year.

G_0 = Indicates the value of per capita GNP in US \$ during base year.

Import elasticity has been worked out in Table-V.10 during the period 1971-81 and 1981-88 for (1) developed and (2) developing countries. The latter group is further bifercated into: (1) Sub-Saharan Africa, (2) South-Asia, (3) East-Asia and Pacific, (4) Latin America and Caribbean, (5) Middle-East and North-Africa and (6) Europe and Mediterranean. Analysis of table-V.10 portrays that during 1971-81, import elasticity (i.e., import with respect to per capita GNP) is inelastic in various country groups with exception of South-Asia, which shows elastic import demand of 5.73 per cent. The import elasticity is found to be inelastic, being less than 0.5 in Developed countries (DMEs), and Middle-East and North-Africa It implies the lack of responsiveness in demand of import due to change in the per capita GNP. As compared to above, the import demand elasticity has been found to be relatively higher in Sub-Saharan Africa, Latin America and Caribbean, Europe and Mediterranean and East Asia and Pacific Countries.

During 1981-88, import elasticity is only found to be elastic in Sub-Saharan Africa, whereas, inelastic in remaining groups of countries. South-Asia is placed better in terms of import market potential than the rest, because she

Table-V.10 : Elasticities of Import Demand in Developed and Developing Countries : 1971-1981 and 1981-1988

Country Groups	Import Elasticity	
	1971-81	1981-88
A - <u>Developed Countries</u>	0.3436	0.9378
B - <u>Developing Countries</u> <u>of which:</u>	0.6179	-0.0406
1. Sub-Saharan Africa	0.8021	1.5830
2. South-Asia	5.7300	0.7732
3. East Asia and Pacific	0.6631	0.2970
4. Latin America and Caribbean	0.8378	0.2443
5. Middle East and North Africa	0.3566	0.3660
6. Europe and Mediterranean	0.6825	0.1590

Basic Source : World Bank, World Tables, 1989-90.

has a relatively higher import elasticity than the other groups of countries. The general findings thus suggest that, during 1971-81, potential for enhancing export from NICs is relatively better in developing (0.61279) than that in the developed countries (0.3436). During 1981-88, all groups of developing countries, excepting Sub-Saharan Africa, show the low import demand potential. Thus, despite high unfavourable

trading environment, developed countries still possess a great import potential for the export from NICs.

Analysis, per-se, based on the country groups, does not reveal the export market potential among the individual NICs. To fill this gap, import elasticity of 8 NICs has been worked out vis-a-vis the individual NICs during the period 1971-81 and 1981-88. It would, roughly indicate the import demand potential of individual NICs into the rest of NICs. The result presented in table-V.11 shows that demand for import of individual NICs, during 1971-81, as inelastic into most of NICs. During the latter period (1981-88), the import elasticity of most of NICs, excepting Brazil and Singapore, has been found to be highly elastic in rest of NICs. Thus, there appears to be a high import market potential for the exports from developing countries and NICs into the developed countries and the NICs themselves.

VI. Concluding Remarks

Thus, present empirical exercise portrayed the poor performance record of India's export vis-a-vis the most of NICs. This was found true from 1971 to 1992, yet some qualitative improvements, were recorded from 1981 to 1992. Such observed phenomenon was found partly on account of cost conditions of production and partly to the role of trade

Table-V.11 : Elasticities of Import Demand of Each NICs
the Rest of NICs : 1971-1981 and 1981-88

Sl. No.	NICs	Import Elasticities		NICs
		1971-1981	1981-1988	
1.	Argentina	0.4876	4.8192	Brazil, India, Israel, Korea Republic, Malaysia, Pakistan, Singapore and Turkey.
2.	Brazil	0.0357	0.8366	Argentina, India, Israel, Korea Republic, Malaysia, Pakistan, Singapore and Turkey.
3.	India	0.4355	1.0567	Argentina, Brazil, Israel, Korea Republic, Malaysia, Pakistan, Singapore and Turkey.
4.	Israel	0.3500	1.0312	Argentina, Brazil, India, Korea Republic, Malaysia, Pakistan, Singapore and Turkey.
5.	Korea Republic	0.4480	1.4318	Argentina, Brazil, India, Israel, Malaysia, Pakistan, Singapore and Turkey.
6.	Malaysia	0.4370	1.0819	Argentina, Brazil, India, Israel, Korea Republic, Pakistan, Singapore and Turkey.
7.	Pakistan	0.4300	1.0429	Argentina, Brazil, India, Israel, Korea Republic, Malaysia, Singapore and Turkey.
8.	Singapore	0.3160	0.9161	Argentina, Brazil, India, Israel, Korea Republic, Malaysia, Pakistan and Turkey.
9.	Turkey	0.4121	1.1769	Argentina, Brazil, India, Israel, Korea Republic, Malaysia, Pakistan and Singapore.

Basic Source : World Bank, World Tables, 1989-90.

regime, which in part was considered as determinants of India's internal export efficiency. It was revealed that India's internal export efficiency in some of non-traditional products had been on account of country's comparative labour cost advantages, whereas, fall in export efficiency in some of traditional items to the comparative material cost disadvantages. The results of the simple and multiple regression models, particularly after 1981, also confirmed the labour cost differences as a critical factor for India's export efficiency/inefficiency.

Besides above, certain export promoting measures (CCS, REP and Duty Draw back) were also found as contributory factor for India's internal export efficiency particularly in non-traditional goods (engineering goods and miscellaneous manufacturing items). On the contrary, fall in export efficiency in case of agricultural products, food, etc. was seen explained by the ineffectiveness of export stimulating facilities. In chemicals, the improvement in export efficiency was found mainly owing to the REP provided on the FOB value of exports.

To what extent India's and of each NIC's exports were able to capture the world market and that of other NICs has also been examined. It is generally found that exports from India and that from individual NICs have been affected more intensively in the developing than that in the developed market economies. It would imply that, developed countries,

in spite of unfavourable trading environment, still possess a relatively high import potential for the exports from NICs. Also, import demand potential in most of NICs from individual NICs has also been found to be high and encouraging.

Appendix-V.1 : Summary of Cash Compensatory Support and Import Replenishment Licences by Export-Commodities

Sl. No.	Export-Commodities	CCS as per cent of FOB value (Effective from 1-4-1989 to 31-3-1992)	REP rate (Effective from 1-4-1990 to 31-3-1993)
A -	<u>Engineering goods of which:</u>	10.08	17.92
1.	Drop forged and other hand tools (excluding precision and measuring instruments)	15.00	15.00
2.	Steel welding machinery	15.00	15.00
3.	Steel wire ropes and wire strands	10.00	15.00
4.	Agricultural machinery, implements and components thereof:	10.00	15.00
5.	Electric fans	10.00	20.00
6.	Sewing machines components and spare parts	8.00	15.00
7.	Bicycle complete, cycle rickshaws and spare parts		
	(a) New models	18.00	15.00
	(b) Existing models	12.00	15.00
8.	Inlet and exhaust valves for reciprocating engines and compressors	15.00	20.00

Appendix V.1 Contd..

9.	Diesel engines and gas engines, complete pumps sets with diesel/petrol/paraffin engines as prime movers	12.00	20.00
10.	Petrol and kerosene engines all types	12.00	20.00
11.	Air and gas compressors	8.00	20.00
12.	Motor vehicles viz; passenger cars, trucks, station wagons, buses and other motor vehicles including tempos and jeeps	20.00	20.00
13.	Tractors	15.00	20.00
14.	Motor cycles, scooters, mopeds	10.00	20.00
15.	Three wheelers (excluding tempos)	10.00	20.00
16.	Laminated leaf springs	12.00	20.00
17.	Storage batteries	10.00	15.00
18.	Synthetic fibres machinery	12.00	20.00
19.	Industrial machinery nes	10.00	20.00
20.	Printing machinery	12.00	—
21.	Buckets, bath tubes and similar other components	—	—
22.	Steel wire gauges, mesh and nettings, galvanised and ungalvanised	5.00	15.00
23.	Dry batteries and components	—	15.00
24.	Iron castings:	5.00	15.00
	(a) Sanitary castings	5.00	15.00
	(b) Industrial castings	12.00	15.00
25.	Bolts, nuts, rivets, screws, nails, splits, cotton pins (steel), railway track fasteners/fittings/accessories	10.00	15.00
26.	Mica capacitors	10.00	15.00

Appendix V.1 Contd..

27.	Steel tubes and pipes galvanised or ungalvanised; steel tubular poles	10.00	15.00
28.	Seamless steel pipes and tubes	12.00	15.00
29.	Air conditioning, refrigeration, humidification and ventilation equipment	15.00	20.00
30.	Steel trunks	8.00	15.00
31.	Pressure cookers	10.00	15.00
32.	Power tillers	5.00	15.00
33.	Vegetable oil mill machinery	12.00	—
34.	Bread making machinery	10.00	15.00
35.	Biscuit making machinery	8.00	—
36.	Dairy machinery	10.00	—
37.	M.s. Dindow, door and ventilator sections	12.00	15.00
38.	Marine freight containers	15.00	15.00
39.	Cast alloy permanent magnets	8.00	20.00
40.	Power equipments		
	(a) Alternators and generators; electric control gears and switch gears of all types. (except train lighting), including motor starters, switch board units, metal clad switches and furniture-units; transformers of all types	10.00	20.00
	(b) Electric power capacitors and condensers; train lighting equipments, including dynamos switch gears and ancillary equipments	—	20.00
41.	Steel castings	15.00	15.00
42.	Heavy earth moving equipments	12.00	15.00

Appendix V.1 Contd..

43.	Electric lamps all sorts	5.00	20.00
44.	(a) Electric wire cables	8.00	15.00
	(b) All types of telephone cables, copper conductor, thermo plastic insulator including solid cellular and foam skin polythene filled/unfilled	8.00	—
45.	(a) Scientific, optical instrument, appliances and accessories	8.00	15.00
	(b) Surgical, medical (including electro-medical) instruments, appliances and accessories	8.00	15.00
	(c) Industrial instruments, appliances and accessories	8.00	15.00
	(d) Photographic and cinema to graphic equipments/instruments, appliances and accessories	8.00	15.00
46.	Ghamellas	—	15.00
47.	Builders hardwares	10.00	15.00
48.	Duplicators	—	15.00
49.	Steel furniture (Tabular and non-tabular)	8.00	15.00
50.	Drum closures	8.00	15.00
51.	Steel forgings all types (including carbon/alloy/stainless steel)	20.00	15.00
52.	Electric laundry irons, electric cattles, hot plates, stoves, heaters and other electrical heating equipments and other appliances; tabular sheathed type heating elements	10.00	—
53.	Project assistance on turn-key projects and package projects of civil engineering const. services, including computer services and software	10.00	—

Appendix V.1 Contd..

54.	Stainless steel razor blades	8.00	15.00
55.	Rotary dusters and sprayers	5.00	15.00
56.	Wall clocks, time pieces and watches	--	15.00
57.	Electric motors all types pre-recorded cassettes	--	20.00
58.	AAC/ACSR conductors including all aluminium alloy conductors (AAAC)	10.00	15.00
59.	Aluminium utensils including containers	10.00	15.00
60.	Deepwell hand pumps	8.00	15.00
61.	Ferro alloys	15.00	15.00
62.	Alloy steel castings including stainless steel castings	15.00	15.00
63.	Pressure lamps, stoves and blow lamps	--	15.00
64.	Electric wiring accessories (other than plastic)	8.00	20.00
65.	Industrial valves	15.00	15.00
66.	Crown corks	5.00	15.00
67.	Manual typewriters	5.00	15.00
68.	Steel wire	8.00	15.00
69.	Bright stainless steel wires	8.00	15.00
70.	Flo-coat tubes	5.00	15.00
71.	High speed steel powder	5.00	15.00

Appendix V.1 Contd..

B -	<u>Chemicals</u> <u>of which:</u>	7.70	15.36
72.	Aluminium powder and paste	5.00	15.00
73.	Chrome pigments	10.00	15.00
74.	Abrasive lapping powder based on fused aluminium oxide and all others excluding diamond powder	8.00	15.00
75.	Face creams/cold cream/foundations/compact/rouge and skin lotions	---	20.00
76.	Dyes and dye intermediates	12.00	20.00
77.	Organic pigments	10.00	20.00
78.	Synthetic detergent powder	5.00	20.00
79.	Drugs and drug intermediates	15.00	20.00
80.	Ayurvedic, Unani and Siddha finished formulations	5.00	20.00
81.	Medicinal plants, herbs, crude drugs, such as psyllium seed husk (Isabgol) Senna leaves etc.	---	10.00
82.	Insecticides, pesticides, weedicides and rodenticides (Formulations and technicals) excluding aluminium phosphide	5.00	20.00
83.	Paints, varnishes and enamels excluding super synthetic enamels	12.00	20.00
84.	Sodium cyanide	10.00	15.00
85.	Sodium sulphate	5.00.	---
86.	Boric acid	---	15.00
87.	Red phosphorous & phosphorous trichloride	8.00	---
88.	Aluminium sulphate	---	15.00
89.	Sodium Formaldehyde Sulphoxylate	10.00	---

Appendix-V.1 Contd..

90.	Sodium Hydro Sulphite	8.00	--
91.	Thionyl chloride	5.00	--
92.	Potassium carborate	5.00	--
93.	Caustic potash flokes	5.00	--
94.	Chloromethanes viz., methylene chloride chloform and carbon tetra chloride	8.00	--
95.	Triethylamine	5.00	--
96.	Chloro acetylene chloride	10.00	--
97.	Ethyl Alcohol	10.00	--
98.	Phenol	8.00	--
99.	Diethylenetriamine (DETA)	8.00	--
100.	Organic surface active agents viz., anionic detergent-dedenal DN paste, non-ionic deter- gent hyoxyd AAO, vationic arkoline HC 100, polyethylene - varsrang 100 ambhoterie - amphocarine BD compound, levelling agent- linoxyd conc.	5.00	--
101.	Myrobalam powder and extracts	5.00	--
102.	Thiourea dioxide (Reduction H.F.)	5.00	--
103.	Pantaerythritol	8.00	--
104.	Fatty alcohols viz., cetyl alcohol acilol-16 stearyl alcohol acilol-18, eauryl alcohol acilol 1214 & cetostearyl alcohol TA-1618	8.00	--
105.	Hairoil	--	10.00
106.	Alkyl phenol and antioxidant	5.00	--
107.	Mercuric compounds viz., mercuric chloride, mercurous chloride, mercuric oxide and mercuric iodide	8.00	--
108.	Methyl acrylate	5.00	--

Appendix V.1 Contd..

C.	<u>Agricultural Products, Processed Food Items, Main Products etc. of which:</u>	8.70	12.42
109.	Egg powder	--	15.00
110.	Canned marine products, namely canned shrimp, fish, crab, mussels and clams, prawn/fish, pickles	8.00	20.00
111.	Frozen lobsters (incl. deep sea lobsters) (whole tails or meat; raw, boiled or cooked)	8.00	20.00
112.	Frozen, lephalopods incl. squid, cuttle fish, octopus, (whole or part incl. tentacles, tubes, rings, wings, roes and filters)	8.00	20.00
113.	Frozen/chilled fish (other than shrimp or prawn) whole, gutted or part-pieces, fillets, minced, paste	8.00	20.00
114.	Frozen molluscs (incl. clam mussels, oysters, snails and chank) (whole or meat raw, boiled or cooked)	5.00	20.00
115.	Freeze dried marine products (incl. shrimps)	10.00	20.00
116.	Hatching eggs	5.00	15.00
117.	Day-cold live chicks	10.00	15.00
118.	Processed chicken based products	10.00	15.00
119.	Guargeem treated/pulverised	15.00	10.00
120.	Refined guar gum splits	5.00	10.00
121.	spices whole or ground, spice mixture and powders under generic names spice or the name of individual spice items in consumer packs of one Kg. or less weight, including curry powder and paste and chilly powder curry powder in bulk.	5.00	10.00
122.	Curry powder in bulk	5.00	10.00

Appendix-V.1 Contd..

123.	Spices oils and oboresing including cardamon oil	10.00	10.00
124.	Biscuits	10.00	10.00
125.	Mango pulp and concentrates	15.00	10.00
126.	Instant coffee	17.00	10.00
127.	Pickles and chutneys	10.00	15.00
128.	Tea bags	8.00	10.00
129.	Packet tea, tea caddies and tea chestlets	18.00	10.00
130.	Canned vegetables, including canned green pepper, canned patraval curried canned undhiu (mixed) vegetables and frozen vegetables	10.00	15.00
131.	Frozen/Fresh chilld meat	10.00	15.00
132.	Canned meat, including meat extract soup (corned beef)	10.00	20.00
133.	Cocoa beans	10.00	10.00
134.	Cocoa butter and cocoa cake/powder	15.00	10.00
		<hr/>	<hr/>
		9.67	16.54
		<hr/>	<hr/>

D - Miscellaneous Manufacturing Goods
of which:

135.	Plastic imitation jewellery	--	15.00
136.	Plastic moulded and extruded goods	8.00	15.00
137.	Synthetic ropes, twins, bristles, strappings	8.00	--
138.	Plastic bangles	--	15.00

Appendix-V.1 Contd..

139.	PVC pipes and fittings	--	15.00
140.	Plastic electrical accessories	8.00	15.00
141.	Writing instruments and parts thereof	10.00	15.00
142.	Linoleum floor coverings	5.00	15.00
143.	PVC foam leather cloth/PVC leather cloth	5.00	15.00
144.	PVC fabricated goods	--	15.00
145.	Cushioned vinyl flooring	5.00	15.00
146.	Cellulose acetate moulding granules/ powder (CAMG)	5.00	---
147.	Hard resin ophthalmic lenses	8.00	--
148.	Finished leather including sole leather	--	15.00
149.	Footwear	20.00	20.00
150.	Footwear components including prelasted uppers	15.00	20.00
151.	Leather garments	15.00	20.00
152.	Other leather products including industrial leather gloves	15.00	15.00
153.	Leather harness and saddlery	10.00	15.00
154.	Foot balls and other inflatable balls	--	15.00
155.	Wool worsted fabrics (having wool content more than 20 % excepting hair belting	12.00	20.00
156.	Shoddy/woolen blankets (having wool content more than 20%)	8.00	20.00
157.	Woolen garments (having wool content more than 20%)	10.00	20.00
158.	Woolen hoisery knitwares (having wool content more than 20%) only on exports to general currency area	13.00	20.00

Appendix V.1 Contd..

159.	Coir products	10.00	15.00
160.	Natural silk fabrics	14.00	20.00
161.	Natural silk garments and made-ups (sarees, made-ups, readymade garments and knit wear)	13.00	20.00
162.	Man-made fibre fabrics/made ups (including mix and blended)	13.00	15.00
163.	Man-made fibre garments including hosiery	17.00	20.00
164.	Carpet backing cloth	10.00	--
165.	Hessian	10.00	--
166.	Jute carpets and mattings	10.00	5.00
167.	Jute handlooms	10.00	--
168.	All items of handicrafts	10.00	--
169.	Hand knotted silk carpets and rugs	15.00	20.00
170.	Hand knotted art silk/synthetic carpets	15.00	20.00
171.	Cotton processed fabrics	18.00	15.00
172.	Cotton made ups	18.00	15.00
173.	Worsted spun yarn	8.00	15.00
174.	Rayon tyre cord/yarn/fabrics	5.00	15.00
175.	Viscose staple fibre spun yarn	8.00	15.00

Source : Kumari, Anita, Export Incentives, Anupam Publishers, New Delhi, Vol.I.

Appendix-V.2 : A Summary of Rate of Duty Drawback Effective as on 1-4-1991 of FOB Value in India

Sl. No.	Commodities	Rate of Duty Draw Back as on 1-4-91 of FOB value
A -	<u>Engineering Goods, including stainless steel products and metal artware of which:</u>	<u>8.94</u>
1.	Brass builders hardware	27.00
2.	Brass artware and electroplated nickel silver (EPNS) ware	27.00
3.	Pressure stoves, mainly made of brass	23.00
4.	Kerosene burner made of brass	27.40
5.	Pressure lamps/lanterns	18.00
6.	Brass builders hardware	22.00
7.	Pressure cookers	15.00
8.	Deepwells handpumps	7.00
9.	Other hand pumps	4.00
10.	Sub-assemblies of deepwell hand pumps/ components parts	
11.	Machine tools and accessories	5.00
12.	Power generating machinery, parts there of	6.50
13.	Textile machinery, parts there of	7.23
14.	Machinery for other purposes and industries, equipments, appliances (other than electrical) and parts there of	8.40

Appendix-V.2 Contd...

15.	Electrical power machinery, equipment for distributing electricity, switchgear, parts there of	12.00
16.	Telecommunication equipment and apparatus, parts there of	15.36
17.	Electric fans all sorts	3.00
18.	Flourscent lamps 20 watts	2.00
19.	GLS lamps	
	(a) Less than 100 watts	4.00
	(b) 100 watts and above	5.00
20.	Storage type water heaters and kettle elements	10.00
21.	Bicycles, assembled or unassembled, with or without accessories	9.00
22.	Cycle rickshaws, assembled or unassembled with or without accessories	9.00
23.	Rims and caliper bracks	19.00
24.	Hubs, handle bars, chain wheel and crank set, saddles and forks	15.00
25.	Gum nets	12.00
26.	Voltage regulator, electrical horn, solenoid switch, dynamo, alternator, generator, wiper motor	4.00
27.	Chassis for motor vehicle	6.00
28.	Passenger busses (excluding mini busses)	6.00
29.	Trucks/load bodies (including half load bodies)	4.00
30.	Pick-up vans, station wagons, delivery vans, cashvans, ambulences and mini busses	6.00
31.	Passanger cars	10.00
32.	Jeeps	4.00

Appendix-V.2 Contd...

33.	Scooters (two wheeld/motor cycles)	5.00
34.	Auto rickshaw and other similar 3 wheeled motor vehicles with or without body	6.00
35.	Water tankers/bowsers and tippers	3.00
B -	<u>Cehmicals and Allied Products</u>	5.80
36.	Drugs and pharmaceutical products	
	(a) Bulk drugs (including salts, esters and derivatives, if any) specified under the first schedule to the drugs (Price control) order 1987 as amended from time to time	4.00
	(b) Others	3.00
37.	Synthetic organic dyestuffs, dye intermediates, pigment dye stuffs and colour lakes, nes.	10.00
38.	Optical whitening agents/fluorscent bleaching agents	8.00
39.	Perfumed aggarbatties	13.00
40.	Others	8.00
41.	Insecticides, pesticides, fungicides, weedicieds and formulations there of nos.	3.00
42.	Bicycle/cycle rickshaw tyre	2.00
43.	Refills for vaccum flasks	2.00
44.	Vaccum flask with plastic outer cover	5.00

Appendix V.2 Contd...

C -	<u>Miscellaneous Manufacturing Articles</u>	6.02
45.	All ceramic cartridges	35.00
46.	All magnetic cartridges	25.00
47.	All ceramic stylus	12.00
48.	All magnetic stylus	25.00
49.	Fountain pens, ball point pens, fibre-tip pens, all sorts	8.00
50.	Jotter refills for ball point pens	6.00
51.	Parts of pens, not otherwise specified	2.00
52.	Lining leather	5.00
53.	All others	7.00
54.	All leather goods including travel goods, nes.	4.00
55.	Leather apparel	7.00
56.	Harness	9.00
57.	Others	5.00
58.	Leather gloves, with or without cotton fabric	5.00
59.	Bags, wallets and purses	8.00
60.	Leather shoes	6.00
61.	Leather sandals/sleepers/chappals	4.00
62.	Leather uppers	7.00
63.	Soles made of leather and other parts of foot wear mainly made of leather	4.00
64.	Rubber canvas footwear	4.00
65.	Inflatable leather balls etc.	7.00

Appendix-V.2 Contd...

66.	Inflatable synthetic balls etc.	10.00
67.	Inflatable balls, footballs/soccer balls/rugby balls/net balls/hand balls/basket balls volley balls and the like made of polyurethane leather with polyester lining	3.00
68.	Cricket/hockey balls and other cork balls	5.00
69.	Cricket bats	5.00
70.	Hockey sticks	5.00
71.	Cricket, hockey, boxing, foot ball and other sport gloves	6.00
72.	Leg guards, abdominal guards and other sports protective equipments	6.00
73.	Carrom board	6.00
74.	General exercise equipment and physical fitness equipment	4.00
75.	Badminton, tennis and squash rackets with or without nylon gut	4.00
76.	<u>Fruit Jams</u>	
	(a) Packed in O.T.S. Cans	14.00
	(b) Others	5.00
77.	Thread, twine, cord and rope made of spun yarn in which man made fibre or cotton pre-dominate by weight, whether containing silk and wool or not	4.00
78.	Handloom/power loom lungies if made wholly or predominantly from viscose staple fibre	10.00
79.	All other including lungies commonly known as sungit	3.00
80.	Real madras hand kerchiefs all sorts	3.00
81.	Other handloom fabrics, if dyed	2.00
82.	Fabrics made wholly or mainly of silk	3.00

Appendix V.2 Contd...

83.	Cotton fabrics, fabrics made of man made filaments yarn/man made staple fibres and knitted fabrics:	
	(a) When embroidered	8.00
	(b) Others	10.00
84.	All others:	
	(a) Grey fabrics	2.00
	(b) Other than above	4.00
85.	Mill made fabrics if dyed	2.00
86.	Terry toweling cloth when dyed	2.00
87.	All other embroidered cotton fabrics nes	6.00
88.	Man made staple fibres and/or filament yarn namely duppatas, shawls, stoles, scarves, umeries, parkas, Arab rumals, subhayyas and khongas	10.00
89.	Bed sheets/bed covers/quilt covers/counterpanes/pillow cases, if dyed	4.00
90.	Cotton bags	4.00
91.	Made up articles produced out of fabric made wholly or mainly of silk	2.00
92.	All others	2.00
93.	Cotton gloves	2.00
94.	Knitwear and articles of hosiery including readymade garments made wholly or mainly from knitted/hosiery fabrics of cotton and/or cellulosic yarn	6.00
95.	Readymade garments, all sorts, made wholly or mainly of woven fabrics (excluding readymade garments made of silk)	8.00
96.	Readymade garments, made wholly or mainly of silk	2.00

Appendix V.2 Contd...

97.	Terry towels, when dyed	2.00
98.	Floor covering including carpets all sorts and small size hand-knotted woolen mats/carpets but excluding machine made woolen tufted carpets	3.00
99.	Cotton durries (including cotton chindi durries)/druggests when dyed	2.00

Source : Anita Kumari, Export Incentives, Vol.2, Anupam Publishers, New Delhi, 1991.

CHAPTER VI

SUMMARY, CONCLUSIONS AND POLICY IMPLICATIONS

We may now recapitulate major findings of the study and draw some general conclusions about the principles that tend to determine the trade cooperation among newly industrialising developing countries. It will not only sharpen our understanding about the need for trade cooperation but also help in exploring certain policy directions for enhancing intra-NICs trade cooperation in proper perspective.

Experience suggests that there exists wide discrepancy in terms of level of development between developed and the developing economies. So as to bridge the developmental gap, many developing countries followed the industrialisation strategy by adopting internal production and trade policies, in which perhaps the key element was the growth of trade. Until mid 60s, development process in many developing countries was characterised as inward-oriented, which laid emphasis on consolidation of

internal production base through reorientation of indigenous investment, material resources, technological capability and the protective-induced measures, such as, tariffs, quota, taxes and exchange rate appreciation. It was but soon realised that such industries, which grew under protective regime also required inputs the demand for which could not be met through domestic sources alone. This, forced developing countries to enhance their import-capacity through increase in export. This is felt because if rising import is not matched by increasing export, the growth process is likely to be constrained by the balance of payment bottleneck, unless country opts to increase its dependence on foreign aid.

Since mid 60s, emphasis, therefore, began to be placed on outward-looking export promotion strategy as basis for industrial development. Such a strategy implied the exploitation of micro and macro economic efficiency by trading of efficiency of factors and commodities. The export promotion strategy though induced country's import-capacity but it was not, however, adequate to meet the import-requirements needed for country's development. This was mainly due to the tariff and non-tariff barriers. Owing to these, many developing countries under various GATT Rounds, UNCTAD Conferences and Uruguay Rounds demanded tariff and non-tariff concessions. However, demand for such concessions appeared no more than a psychological satisfaction. This was because tariff and non-tariff

concessions either ended at the stage of discussion and debate or the extent of such concessions thereunder was too insignificant to make any profound impact on the export prospect of developing into the developed countries. Owing to various restrictive clauses and safe guard actions, the impact of tariff and non-tariff barriers was less intensive on exports from developed than to that from developing countries. Apart from these, developed countries had also been successful in 'skipping over' the impact of tariff and non-tariffs through diversifying their products and markets, where as, developing countries could not be able to counter such adverse effects. Consequently, export prospect of developing into the developed countries appeared to be extremely dark and discouraging. Under these compulsive circumstances, developing countries were, therefore, compelled to seek alternative market outlets for their exports and hence trade among developing countries themselves through trade cooperation come to be recognised as second best solution than to that between developed and the developing countries. Towards this direction, present study attempts at examining the certain principles as tool for enhancing the trade cooperation among selected newly industrializing developing countries through mutual cooperation.

I - Trade Performance : An Overview

So as to provide backdrop for the study, Chapter-II examines the trade performance of non-oil producing and exporting countries (NONOPEC), oil producing and exporting countries (OPEC), developing countries (DCs) and developed market economies (DMEs) from 1961 to 88 in terms of export performance, import requirement, terms of trade, relative share of export and market-wise direction of trade. By using the trend regressions, general finding underlined the poor export performance record in the NONOPEC vis-a-vis the developed countries. This was seen accompanied by higher rate of growth in import over export, which overtime resulted deficit into the merchandise trade. As a result, position in balance of trade turned out to be worse off in developing than that in developed countries. Share of export in developing countries and that in NONOPEC in the world export also fell down steadily, whereas, that in developed countries shot up considerably. Interestingly, export share in OPEC witnessed a deterioration and this was sharp particularly after 1982. Principal factor accountable to above phenomenon inter-alia was the slow growth in export prices than that in import prices. This also affected the position in terms of trade, which appeared worse off in NONOPEC than that in OPEC and the developed market economies.

Viewed from 1961 to 88, trade performance measured in terms of macro economic aggregates, was seen lagging behind in developing countries and NONOPEC vis-a-vis the developed countries. As for the trade flows, it witnessed improvement between the developing countries in non-traditional technology-intensive goods, like, chemicals (5.0), machinery and transport equipment (7.0) and miscellaneous manufactured articles (8.0), whereas, there was a deterioration in traditional resource-intensive goods. The poor export performance in developing countries resulted into the foreign exchange shortage, which, overtime deepened dependence on external assistance for economic development process. This alternatively implied the undesirably and heavy reliance on import linked foreign aid led growth strategy, which could be reverted back only if export performance could be accelerated through adopting economically viable and efficient trade and production policies conducive to country's factor endowment structure.

II. Comparative Advantage and Trade Cooperation

So as to understand the basis for intra-NICs trade cooperation, Chapter-III examines the level of comparative advantage at 3 digit levels of SITC commodities for 1969-72 to 1974-76, 1974-76 to 1979-82 and 1979-82 to 1984-87, by employing Balassa's export performance indices. Based on the top 50 commodities, the general findings suggested that

revealed comparative advantage was mainly confined on the traditional commodities, though products from non-traditional sector also portrayed the potential. This was found valid in 7, out of 9 NICs, during all periods considered. Thus, revealed comparative advantage lying on traditional products was primarily due to the nature of country's factor endowment structure, whereas, that on non-traditionals to the trade policy responses. Revealed comparative advantage was also examined in a dynamic framework. During 1969-72 - 1974-76, revealed comparative advantage confined on traditional goods in Pakistan, Malaysia and Argentina was seen shifted in favour of non-traditional goods in 1974-76 to 1979-82, whereas, reverse was the case in Korea Republic, Singapore and Turkey. Revealed comparative advantage in India, Brazil and Israel was, however, seen confined consistently on traditional goods during the first as well as in the second period.

During 1979-82 to 1984-87, there was a clear shift in revealed comparative advantage from traditional to non-traditional commodities. This was particularly true in Singapore, Malaysia, Korea Republic and Turkey, where as, it was retained consistently in India, Brazil and Israel on traditional goods. Generally, there was a small gain in terms of revealed comparative advantage in case of non-traditional goods compared with the traditional goods during the second over the first periods, while it was substantial in the third over the second period. Such a,

transformation of revealed comparative advantage from traditional to non-traditional goods, more or less, implies the general applicability of 'product cycle theory' and Balassa's 'Stages of Comparative Advantage', whereas, those from non-traditional to traditional goods, the existence of factor proportion theory.

Question as to what extent have country's products possessed competitive ability has also been examined commodity-wise. Oligopolistic competition characterised by cut-throat competition in terms of cost and price was found existing in majority of products though there was some variations across NICs over different periods. For instance, during the first period, Korea Republic, Malaysia, Pakistan and Singapore were seen facing oligopolistic competition while in Argentina, Brazil, India, Israel and Turkey, the perfect competition prevailed. During second period, all NICs, except Malaysia had faced the oligopolistic market competition. During the final period, a similar situation also existed in Israel, Korea Republic, Malaysia, Pakistan and Singapore. On the other hand, perfect competition in Argentina and duopolistic competition in Brazil, India and Turkey were seen in existence. Further, dissimilarity in factor endowment among NICs for the products exported to developed and the world, whereas, similarity to the developing countries had also been discovered. Besides, findings also suggested the strong correspondance in terms of

internal export-supply and that of external import-demand among NICs. Based on the general findings, block-wise intra-NICs trade cooperation has been suggested.

III. Competitiveness and Trade Cooperation

Consideration of revealed comparative advantage howsoever important it is, is not the sufficient basis for trade cooperation, which calls for the examination of export competitiveness. Chapter-IV, therefore, empirically examines the competitiveness of exports from 1969-71 to 1979-81 and 1979-81 to 1985-87. Applying CMS model, study explores the change in export due to (1) world trade effect, (2) commodity composition effect, (3) market distribution effect attributable to world demand conditions, while residual (4) competitiveness effect is arrived discernable to the influence of factors on supply and demand, price and non-price but are largely confined to the domestic policies of the exporting country.

At the country level, competitiveness effect, during the first period, was found to be positive in Brazil, Israel, Korea Republic, Malaysia and Singapore, while negative in Argentina, India, Pakistan and Turkey. During the second period, competitiveness effect, excepting Argentina, was found to be positive in all NICs. Across the sectors, sign of competitiveness, during 1969-71 to 1979-81, was found to be positive in traditional sector in 5 NICs (Brazil, Israel, Korea Republic, Malaysia and

Singapore), while in non-traditional sector in all NICs. However, the sign of competitiveness effect in the traditional sector in 4 NICs (Argentina, India, Pakistan and Turkey) had been found to be negative vis-a-vis the rest of the world. During 1979-81 - 1985-87, there was a favourable competitiveness effect in traditional sector in all NICs, while in non-traditional sector in 6 NICs (Brazil, Korea Republic, Malaysia, Pakistan, Singapore and Turkey).

At one digit level of SITC commodities, during 1969-71 - 1979-81, competitiveness effect within the traditional sector was found to be positive in important product groups, such as, manufactured goods classified by materials (6.0) in 5 NICs (Argentina, Brazil, Israel, Korea Republic and Singapore); food and live animals (0.0) in 4 NICs (Brazil, Korea Republic, Malaysia and Singapore); beverages and tobacco (1.0) in 5 NICs (Argentina, Brazil, Korea Republic, Malaysia and Singapore); etc. As far the non-traditional sector, competitiveness effect was found to be positive in majority of product groups and NICs, such as chemicals (5.0) in 6 NICs (Argentina, Brazil, Israel, Korea Republic, Singapore and Turkey); machinery and transport equipment (7.0) in all except Pakistan; and miscellaneous manufactured articles (8.0) in all NICs with exception of Argentina and Brazil. During 1979-81 - 1985-87, it is satisfying to note that competitiveness effect within the traditional sector has been found to be positive in

manufactured goods classified by materials (0.0) in all NICs; crude materials inedible except fuels (2.0) in 6 NICs (Brazil, India, Korea Republic, Malaysia, Pakistan and Singapore); animal vegetable oils and fats (4.0) in 5 NICs (Argentina, Brazil, Israel, Malaysia and Pakistan); etc. Within the non-traditional sector, competitiveness effect has been found to be positive in all product groups, such as, miscellaneous manufacturing articles (8.0), machinery and transport equipment (7.0) and chemicals (5.0) in majority of NICs.

Since analysis per se, would likely to involve the aggregation bias, the study examines the competitiveness at two digit levels of SITC commodities. During 1969-71 - 1979-81, a majority of products within the traditional sector portrayed the positive competitiveness effect in Brazil, Israel, Korea Republic, Malaysia, Singapore and Turkey, where as, that in Argentina, India and Pakistan, negative competitiveness effect was revealed. Within the non-traditional sector, more or less, the similar pattern was also found true in all NICs, except Malaysia and Pakistan, which showed the negative competitiveness effect. Although large number of products portrayed the favourable competitiveness effect both in traditional and the non-traditional sectors, but it was relatively more substantial in the former than that in the later product categories. During 1979-81 - 1985-87, with in the traditional sector, there was a favourable competitiveness effect in Brazil,

Israel, Korea Republic, Malaysia and Singapore. With in the non-traditional sector, similar was also the case in Brazil, Israel, Korea Republic, Malaysia, Pakistan, Singapore and Turkey. However, between the traditional and the non-traditional products, the competitiveness effect was found to be more favourable in the former than that in the later product categories. In sharp contrast to this, competitiveness effect over the periods was found to be more favourable and substantial in the non-traditional products than that in the traditional product groups.

The nature of competitiveness as reflected by the residual in CMS model tends to indicate the role of internal production and trade policies of the export-country. In this context, findings suggest that favourable competitiveness observed in most of traditional and non-traditional product groups but in important ones has mainly been on account of labour cost advantages, conducive production and trade policies and the various policy stimuli extended by the NICs under the New Economic Policy. On the other hand, unfavourable competitiveness effect in product groups and NICs has mainly been due to the material cost disadvantages, fall in price competitiveness and the high tariff and non-tariff barriers.

The general findings thus tend to suggest the intra-NICs trade cooperation block-wise. Among the traditional sector, it is suggested that first block (Argentina, Korea

Republic and Malaysia) may export various products from crude materials (2.0), animal vegetable oils and fats (4.0) and manufactured goods classified by materials (6.0) to the rest; second (Brazil, India and Israel) from food and live animals (0.0) and mineral, fuels, lubricants and related materials (3.0) to the rest; and third (Pakistan, Singapore and Turkey) from beverages and tobacco (2.0) to the rest of blocks. Similarly, among the non-traditional sector, first block may export various products from miscellaneous manufactured products (8.0) to the rest; second from machinery and transport equipment (7.0) to the rest; and third from chemicals (5.0) to the rest of the blocks.

IV. Export Growth, Internal Export Efficiency and Policy Responses

It was noticed that within the traditional sector, share of exports in food and live animals (0.0), beverages and tobacco (1.0), crude materials inedible except fuels (2.0), mineral, fuels, lubricants and related materials (3.0), animal vegetable oils and fats (4.0) and manufactured goods classified by materials (6.0) declined in India's export basket. This was seen accompanied by the rising share of export in non-traditional sector products, such as, chemicals (5.0), machinery and transport equipment (7.0) and miscellaneous manufacturing items (8.0). So as to explain this comprehensively, chapter-V examines the role of factors on supply and demand in terms of cost efficiency and trade policy in 1971, 1981 and 1985.

General findings suggest that fall in export efficiency in India's principal commodities has partly been on account of comparative disadvantages in terms of material cost, whereas, rise in export efficiency to the comparative labour cost advantages. Using simple linear and multiple regression models, labour cost has been found as a Vital factor for improvement of India's internal export efficiency in 1985. A close examination of the role of policy measures also tends to supplement such findings as most of the products under non-traditional manufactured items, showing high internal export efficiency have seemingly enjoyed, on an average, a higher rate of cash compensatory support (CCS), import replenishment licences (REP) and the duty draw back supports than those of internally inefficient traditional export commodities. However, high export efficiency on products under chemicals is seen mainly due to the high REP facility extended to FOB value of export. Finding, therefore, identifies the comparative labour cost advantages and selective policy measures as important determinants for India's internal export efficiency, whereas, comparative material cost disadvantages and unfavourable policy supports for export inefficiency commodity-wise.

What extent India's principal export-commodities are able to capture the world market has also been examined through import-elasticity by country groups for the period

1971-81 and 1981-88. It was found that developing countries possessed a higher market-potential during 1971-81 than that of the developed market economies, which was reversed during 1981-88. During this period, developed countries portrayed a better market-potential vis-a-vis the developing countries. As far as import-potential among NICs was concerned, it was found low during 1971-81, which improved significantly during 1981-88. Findings thus manifests that apart from NICs, developed market economies possessed a large import market potential for the export from developing countries in general and that from NICs in particular.

V. Implications for Policy

Present study is not without policy relevance. To the extent export performance in NICs and developing countries lagged behind to that of the developed market economies calls for the following policy considerations: First, export-commodities with large export potential need to be identified and then concerted efforts to be made to overcome the internal supply bottlenecks, such as, inadequate infrastructural supports, untimely and inadequate supply of raw materials, reduction in cost per unit of output, poor packing, inefficient marketing strategy, etc. Second, more effective trade regime needs to be followed in NICs to boost up their exports through providing more result oriented package of export augmenting

incentives in terms of tariff cuts, high subsidies, etc. Thus, export incentives and schemes need to be restructured on a selective and discriminatory basis to enhance their proper utilization for efficient exports. Simultaneously, export incentives, having counter productive effect on export expansion, are required to be immediately withdrawn. Here, it would be essential to see that advantages of such measures are only availed for promoting the efficient export-products rather than trading of incentives. And third, bureaucratic control generally involving undue procedural delay needs to be kept at minimum level. Although, some attempts have already been made under the New Economic Policy in market determined approach but still more needs to be done to make the products of NICs cost effective and their exports internationally competitive.

The policy measures outlined above would be more effective if specialisation of commodities is also taken into consideration. To the extent some NICs are found with revealed comparative advantage in principal traditional commodities on account of labour cost advantages and that in non-traditional commodities to the trade regime, policy incentives need to be selective and discriminatory inconsistent with specific market orientation. Since most of NICs are found facing oligopolistic market competition and that export-supply has matched well with import-demand

structure, intra-NICs trade cooperation as suggested by specialisation criterion would be useful and rewarding.

Besides efficiency, formation of intra-NICs trade cooperation on the basis of competitiveness would also be an essential step for enhancing the trade among NICs. This may be further strengthened if and knowledge about information on technological capability, adoptibility and innovativeness, product development, industrial and financial policies is equiproportionately shared by NICs for their mutual benefit. The formation of trade cooperation per se further receives a strong empirical support by the empirical examination import elasticity consideration. The upward movement in import elasticity over time in developed countries and that in NICs appears to be the strong basis and economic justification for trade cooperation among NICs. These are some of the policy recommendations emerging from the general findings of the study, which would likely to serve as tentative guidelines for enhancing intra-NICs trade and cooperation in consistent with economic growth with collective self-reliance.

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